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DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA  
PUBLISHED MONTHLY under direction of the Council  
OFFICE OF PUBLICATION: 822 HEALEY BUILDING, ATLANTA, GA.

VOLUME X

ATLANTA, GA., JUNE, 1920

### **\*SOME OBSERVATIONS ON MEDICAL EDUCATION WITH PARTICULAR REFERENCE TO ITS PRESENT STATUS IN THE SOUTH.**

Edward G. Jones, M. D., Atlanta, Ga.

Not so much out of deference to tradition, but rather to indulge myself in a definite pleasure I want to register an expression of my appreciation for your consideration in elevating me temporarily to be the titular head of the organized profession of the State. The honor implied in your action justifies any investment of time or thought which any one thus distinguished may be able to make.

#### **Historical.**

Throughout the United States there is an average of one physician to every 720 persons. In the South the proportion is one to 840; or one to 588 white persons. This latter statement does not take into account the number of colored physicians in this territory, information on this point not being available.

In only six states of the Union, namely, Idaho, Mississippi, North Carolina, North Dakota, South Carolina, and South Dakota, are there more than 1,000 persons to one physician. In five states, to wit, California, Colorado, Illinois, Indiana, and Iowa, there are less than 600 persons to one physician.

The 1919 proportion of physicians to population in Great Britain was one to 1,500.

That there is need of physicians in certain sparsely settled districts is true, but there is no general dearth of doctors and will not be. The problem for those communities will be met by automobiles, better roads, and an expanding disposition to patronize hospitals in small centers.

Fifty years ago the United States harbored 75 medical colleges. Fifteen years ago this

\*President's annual address, Medical Association of Ga., Macon, May 6, 1920.

number had increased to 162. Since 1906 the number has gradually decreased to 85 at the present time. Of these 85 only one is eclectic, at Cincinnati, and five are homoeopathic. In 1901 there were 10 eclectic and 32 homoeopathic schools. In 1919 only 28 students were graduated in eclecticism and only 89 in homoeopathy.

The number of students in medical colleges has been steadily decreasing, and in 1919 was 13,000—less than half the attendance fifteen years ago.

However, during the past seven years the per cent of students has increased in the Class A medical schools from 65 to 88; in the Class B schools there has been a decrease from 24 per cent to 8 per cent., and in Class C schools from 10 per cent. to 3.8 per cent. During this seven-year period there has been also an actual increase in the number of students attending the Class A schools; the net decrease has been at the expense of the lower grade schools.

Indeed, the advance sheets of the Report of the Council on Medical Education submitted last week in New Orleans show that for 1920 there is an actual increase of some 500 students over the previous year; and the enrollment by classes indicates clearly that the low ebb has been passed.

The present entrance requirement for first grade schools is a minimum of two years of college work—a requirement which, when it was proposed, met the intellectual approval of most of us, but which nevertheless seemed portentous. We have now progressed sufficiently to feel that this requirement is wise. The improvement in the caliber of the student body is so gratifying that few first class physicians would consider being connected with a college which does not make this requirement. This, however, necessitated such financial readjustments that practically all colleges



had to seek the healthy shelter of university affiliation. Provision had to be made for income from state aid or from private philanthropy. The result has been a remarkable stimulation of public interest in medical education. Indeed it has happily come about that the needs of medical education now appeal more strongly to wealthy benefactors than the needs of any other class of educational work. Witness the erection of many new buildings, the establishment of expensive necessary laboratories, the employment of large numbers of trained full-time teachers and the expansion of clinical facilities by the establishment of integral relations between colleges and hospitals.

It is no longer true that many medical students are influenced in their choice of a college by the amount of tuition fees. They have come rightly to be more interested in the product of the school than in the price of a diploma. However, it is by no means true that the merit of a college can be estimated on the basis of high or low charges. Some few institutions of low grade take advantage of the fact that a certain number of aspirants cannot get a degree elsewhere and so will be willing to pay any price. On the other hand several excellent departments of state universities charge only nominal tuition, at least to local students. In fact, a student can no longer be expected to pay anything approaching the cost of his medical education in a first class college. At present Class A medical schools are, from private endowment, from state aid, or from other similar sources, supplying an additional two dollars for every one dollar paid in by the student. The fees in Southern medical colleges are about the average for the country.

There is a recent decided tendency toward medical co-education even in the older and more conservative institutions; as witness the action of Columbia, Harvard, Western Reserve, Tulane, the University of Pennsylvania and others. There are now 59 co-educational medical colleges. Moreover, women display a disposition to patronize these co-educational institutions rather than the one Woman's Medical College (Philadelphia), there being only 7 (6.6 per cent) graduates therefrom in 1919.

## Problems.

*Hospital Connections.*—That academic re-ature of medical education which at the present time deserves our most thoughtful attention is not preliminary education, not laboratories, not teachers in fundamental branches, but *efficiency in the clinical branches*.

Those who have directed the renaissance intimate that the preliminary two-year requirement may be considered as a permanent minimum standard, and medical education has adapted itself to the situation in a manner which is gratifying alike to the profession and to those state authorities and private philanthropists who have made it possible. Practically all colleges which hope to deserve any reputation, or which even hope for any continued existence, have for some time been provided with adequate laboratories, and at least with all time heads of departments in the fundamental sciences; so that there even begin to appear criticisms that the business of making practicing physicians is being overshadowed by the work of the first and second years, and that the trained teachers in these departments are exercising too large a relative influence in shaping the curriculum.

I dare say that those among you who were in charge of wards in the army camps had infinitely less trouble in getting reliable and illuminating information from your laboratory subordinates than you did in finding men who could distinguish and recognize not obscure affections, but pleural effusion, a diastolic murmur, meningitis, pulmonary rales, or localized abdominal rigidity. We are constantly inferring that it was easier to get the most technical serological data than it was to find men who could accurately dispose of a Colles fracture, or make a spinal puncture or even catheterize a patient expeditiously. Now these are intimations which must seriously challenge the attention of those who essay to direct the teaching of medicine and surgery.

While there is a commendable tendency to direct medical education toward preventing people from getting sick, it must not be forgotten that the traditional and the ordained object of educating doctors is to relieve people who are sick. And a requisite to relieving

people who are sick is the ability to find out what is the matter with them.

We must not fall into the error of believing that the sensible care of the sick can be taught in the laboratory. It can be taught at one place only, and that is at the bedside. This means that it can be taught only by a good clinician to small groups of students; and this further means that medical schools will be obliged to have a comparatively large staff of clinical teachers.

The science of medicine may be gotten from books or taught in laboratories; the art of medicine cannot be so taught. Your experience is pregnant with instances such as the following: a brilliant mind will make a proper diagnosis when certain information as to physical signs, etc., is laid before him, yet he utterly lacks the capability to go to the bedside and elicit that information. Next to common honesty, common sense is the most precious commodity in the practice of medicine. It is the ability to examine a patient and get the important data, and to recognize which data are important, and properly to evaluate the data, that distinguishes a superlative diagnostician.

Students must be taught to examine patients with the same thoroughness and minute attention to detail which they have been taught to consider essential to accurate laboratory work. Research work is good; but research work does not teach men to be good practitioners. Research work is for the occasional mind; the average man has not a research mind, but lacking the investigative mind, he may still be a very useful physician.

Recognition of our shortcomings in this respect is healthy. It is leading to adjustments which, if properly directed, cannot fail to be helpful. To their surprise it has gradually begun to dawn upon some hospitals and colleges conveniently located that their interests will be mutually advanced, and the public will thereby be benefited, by an arrangement which allows the college to take control of the scientific program of the hospital and the professional care of the charity patients. I do not believe my statement will meet with challenge anywhere when I say that without exception where sentiment and politics have allowed such arrangement to be made, and fair-

ly tried, the wisdom of the experiment has been amply vindicated, not only by the contribution thus made to the capability of the student but by the more careful attention which the patients necessarily received. As a body (with individual exceptions) the teaching staff of a medical college is obliged to give better attention to the patients under its care than it would give if its efforts were not thus exposed to scrutiny by students, to criticism by other members of the staff, and to review by the governing board of the hospital. We all know men peculiarly endowed with diagnostic acumen who go directly and clearly to the kernel of the subject, no matter whether they are teaching students or not. Such men ought to be teaching.

An obvious advantage of a working alliance between medical colleges and good hospitals already in operation is that such hospitals have their financial support provided for—and this is such a tremendous expense that most colleges cannot afford it. A further obvious advantage is that such hospitals by reason of the fixed source of maintenance, and for other reasons, usually afford a larger supply of patients than can be taken care of by hospitals supported by private endowment. It need not be urged that such an arrangement is a matter of taking advantage of the public and showing favoritism to the colleges, for medical education is already recognized as a philanthropy and to support it is to support the interest of the public.

Where other satisfactory arrangements cannot be made the college cannot expect to exist without its own hospital—and except for the money problem this is ideal.

This brings us to face the fact that while hitherto reform has largely and properly directed its attention to raising the educational standard for entrance and to the proper manning of the fundamental chairs, there can hardly be any doubt but that prime attention will henceforth be fixed on the teaching of clinical medicine and surgery. This is as it should be. There is every reason to assume that some colleges now rated well will have their rating reduced unless they can promptly provide themselves with hospital connect-



ions more nearly ideal than they now have. Indeed the clinical teachers in such colleges will prefer to have the colleges close rather than continue with inadequate provision for the kind of work they want to do and are capable of doing.

*Hospital Responsibility.*—Permit a very brief mention of an oncoming event relating to hospitals in general.

The place hospitals have come to occupy in our civilization and the position to which they aspire in respect to human meliorism bring them within the proper scope of civic as well as professional study. Indeed I have an idea that many well regulated hospitals are going to become teaching centers themselves—without any present reference to medical colleges; but from them will probably emanate so much of educational value that they will finally be recognized as educational institutions. A satisfactory connection with a good hospital is going to be more attractive to a good clinician than attachment to a medical college.

In the United States last year one person out of every 20 was a hospital patient. The average civil hospital had accommodated nearly 17 patients during 1919. In the Southern States one person out of 62 was a hospital patient while in Georgia a single bed was occupied by more patients (20) than in any other state except Montana which latter State had a larger percentage (7.54) of its population treated in hospitals than any other in the Union.

Georgia now has 8 hospitals (more than any southern state except Texas) of 100 or more beds (total 1325) which together treated 28,064 persons in 1919.

It is only too apparent to all of you that perhaps the most serious *fundamental* fault of hospitals in our country has been the lack of alert intelligent supervision of the work done therein. I think you will agree with me that many hospitals have been too much "places to put patients," rather than places to study patients; that practically no effort has been made to determine what doctors patronizing the hospitals have had good results and what doctors have had bad results, and why; what doctors have operated on patients who did not need operations; or what doctors

direct their activities toward the attainment of high ideals rather than toward prostituting their hospital privileges in the pursuit of practices which are careless if not criminal. How many hospitals within your knowledge have on file any sort of reliable record of the symptoms of a patient who was there last year; or a record proving that the patient was even carefully examined? How many have trustworthy data respecting the course of that patient's sickness during his stay? How many make any effort to determine whether the patient remained well after leaving the hospital; or, how many, if they have such information, have it in such shape as to be available; or, if it is available, have the trustees acted upon it so as to protect the patients coming into that hospital from incompetent or dishonest doctors? These are questions which hospitals must prepare themselves to answer favorably. If they do not answer favorably they will soon be in the same position before the public as medical colleges which cannot make a satisfactory showing—they will be simply advertised out of existence. At the present time less than one-third of the 671 hospitals in the United States and Canada of 100 or more beds can make a satisfactory showing. It is improbable that the smaller hospitals can make as good a showing as the larger ones.

The kernel of the matter is that hospitals which do not exercise the protection over their patients indicated in the above questions are certain to be patronized by at least some physicians who are careless with their patients—and carelessness in medicine is always the positive degree of a term whose comparative degree is incompetence, and whose superlative degree is criminal. Such hospitals do not admit a responsibility which the early future is going to demand that they assume; namely, the responsibility of protecting their patients against incompetent professional attention. On the other hand hospitals which do exercise the precaution implied in this discussion will just as certainly, in the process of exercising that precaution, weed out physicians who are unreliable. They will thus acknowledge and meet a responsibility to the public which is soon coming to be one of the recognized functions of any hospital which can hope to draw

upon philanthropy or upon the good will of the public.

Nor need it be assumed that the administration must adopt an attitude of spying on the activities of the staff in order to bring about relative routine efficiency. Rather will the administration draw its conclusions from compiling information furnished by the staff, and every member of the staff will contribute to that information by the simple expedient of complying with certain regulations which he has himself subscribed to as reasonable. These regulations ought to include such things as (1) regular staff meetings for the discussion of compiled information respecting mortality, infection, unsatisfactory results, the agreement of pre-operative and post-operative diagnosis, etc.; (2) routine attention to such matters as signed records including personal history, physical examination, laboratory findings, final summary, tissue reports, etc., etc.; (3) in general, the giving of a considerable portion of his time to co-ordinate his and the hospital's efforts to the end that the patient be served.

*Intern Service.*—There is yet another feature of medical education which has hitherto not had the attention it deserves. The average graduate will take one or two years of hospital work immediately following the completion of his college course. This period ought to constitute, thus far, the most useful part of his preparation. It ought not only to furnish him a chance to be constantly in touch with sick people, but it ought to throw on him certain responsibilities as to diagnosis and treatment which will give him a degree of accuracy and self confidence which he cannot get in any other way. His internship ought moreover to be so planned and directed as to instil in him a respect for the careful routine examination of patients, an appreciation of the value of keeping proper records, and an earnest ambition to recognize the underlying pathology wherever possible. I seriously doubt if another such large opportunity for improving the caliber of young doctors is being overlooked. There is too little careful planning in advance with the idea of making the internship really worth while. A system which fixes no definite responsibility on a

given intern, or which divides his responsibility, or which makes him responsible for a short term to one man and again to another man or set of men is not only inefficient, but pernicious. It saps his ambition, puts a premium on carelessness, and makes of him little more than a high class orderly. It is easy to imagine the confusion and inefficiency in a comparatively large hospital which allows the intern to change service every month or two.

It is due to oncoming doctors that the superlative educational value of intern service be more carefully studied. Its very large possibilities are being neglected in such a manner as actually to subtract from the enthusiasm and ambition of many who ought to profit by it.

*Clinical Teachers.*—This brings us to discuss another question in medical pedagogy the proper answer to which probably cannot be given at present; namely, the wisdom or unwisdom of the institution's controlling the whole time of the clinical teachers. If the custom of depending upon men engaged in active practice also to do the teaching in pathology or physiology was foreordained to be unsatisfactory, the custom of depending on active practitioners to teach the clinical branches also has certain inherent shortcomings; though whether these shortcomings are not outweighed by advantages is debatable. Of course this is a question which is already settled for colleges which cannot command a large income; the plan is too expensive for them.

Undoubtedly those colleges which can control enough money are showing a tendency to try the experiment in at least a few departments, yet the Council on Medical Education admits that to date the plan has been unsatisfactory.

Naturally the question arises whether the best men can be obtained for such full time work. Not only do the best men—the men who would be wanted for these positions—command the largest incomes from private practice, but even if they waive the question of money they are inclined to doubt if their interest in their private patients subtracts from their pedagogic efficiency. Their posi-



tion in this respect is possessed of merit *provided their private patients are all in the college hospital*. Their position is untenable if their patients are scattered here and yonder so that a large part of the day is spent away from the teaching base. It will be quite possible in almost any center where a medical college shall continue to exist and therefore where hospital relations to the college meet the requirements which will certainly be exacted, for the professors of medicine and surgery (at least) to confine their work entirely to the college hospital, provided the hospital accommodates both private and charity patients. Indeed this suggestion is capable of such amplification that an arrangement is easily conceivable whereunder the heads of all the clinical branches would actually prefer to have no outside work and would, therefore, welcome a prohibition against any extra-hospital professional activities. If a man is unwilling to incur the risk of losing private practice under such a plan it is doubtful if he is sufficiently interested in teaching to justify his holding a position of such responsibility. Under a plan of this sort the fact that a certain percentage of the patients in his charge are private patients would not seem to interfere with the efficiency of a man as a teacher; indeed the average private patient under these circumstances would more or less automatically become a teaching patient, for even if undergraduates did not come in contact with his complaints and treatment the corps of interns (who are still students) would necessarily do so. Should it so turn out that his private work assumed such volume as to take too much of a man's time the suggestion of limiting the number of beds at his disposal for private patients is possessed of very potent therapeutic merit. It would seem that in practically all instances the principle in question would be satisfactorily served and the institution would save much money by requiring a man to do all his work, private and public, in the college hospital. Would not a large part of the money, if available, be better spent for competent associates?

*Age of Entrance to Profession.*—The final problem I will mention relates to the fact that

under present regulations the average age whereat a man begins to try to practice medicine is beyond 28. This is admittedly too late. Our profession is inclined to the view that a readjustment can be made in the general educational curriculum so that one can begin the study of medicine some two years earlier than that curriculum now allows.

It will doubtless be difficult to enlist the sympathy of educators in a plan which violates tradition, and which, to their mind, will introduce confusion in the accepted course of orthodox secondary education. Doubtless, however, time, patience, and progress, will bring this question ultimately to a less unsatisfactory solution.

#### Of Special Southern Interest.

It is plain that medical education has waited upon, and must still wait upon, general education in the South; so that it is impossible to get an intelligent conception of the outlook without including a survey of the present status and the future promises of general education. Indeed I had collected quite a volume of data bearing on this subject, but I have discovered that time will permit only a synopsis of the situation.

Historically, the State Constitution of 1877, which is our present Constitution, was unfriendly to education. It not only refused to exempt higher education from taxation, but made it almost impossible to levy taxes for education of any kind. This period found Georgia with a negro illiteracy of 92 per cent. and with a white illiteracy of 27 per cent. Through many tribulations, and through 40 years, the situation gradually improved so that in 1910 negro illiteracy in Georgia had decreased to 36 per cent. and white illiteracy to 7 per cent. The status of our own commonwealth relative to other southern states is gratifying. We have less white illiteracy than any other southern state and less negro illiteracy than South Carolina, Alabama and Louisiana.\*

This improvement has been made in spite of laws instead of by the help of laws. The Constitution does not make it impossible to levy a local tax for educational purposes, but it makes it almost impossible to do so. In the

face, however, of such constitutional handicaps as a two-thirds majority in elections, recommendations by successive grand juries special authorization by the legislature etc., etc., nearly half the counties in Georgia, and numerous cities, towns and districts in the other counties have emancipated themselves educationally by voting special tax funds to support their schools.

But one can discover if he will what probably most of us do not realize; namely, that during the past year more progress has been made toward the improvement of common school and secondary education in Georgia than has been made in the whole 50 years since the civil war. This program of improvement inaugurated by the State Commissioner of Education, Professor Brittain, and authorized by the General Assembly falls under the following heads which cannot be elaborated here:

(1). Every county which does not now levy a local educational tax must levy as much as one mill for this purpose; it may levy more. Any district or municipality in that county may levy more than the county rate if it so wishes.

This law, though passed by the Legislature, cannot become effective until it shall have been ratified by the people at the next general election.

(2). The compulsory educational law has been strengthened in a manner which will make it much more nearly impossible for a child to stay out of school.

(3). Provision is made that hereafter one half of the state's whole income shall be appropriated to the common schools.

(4). An Illiteracy Commission has been created. Under the guidance of this commission already several counties have reported not a single person who cannot read and write.

(5). Provision has been made to meet the requirements of the Federal Act relating to vocational training. This law is intended to help agriculture, trade and home economics through evening, part time, and ordinary day schools. It is especially hoped that the operation of this law will be helpful to the 95 per

cent. of our youth who by reason of poverty, or for other reasons, cannot reach the higher institutions of learning.

(6). Direct financial help is offered to induce scattered rural schools to combine and to encourage the best type of teaching therein.

(7). Every school unit, whether district, county or municipality is authorized to issue bonds to erect school buildings, these buildings, and all other public school buildings, to be erected in accordance with plans furnished by the State or local boards.

(8). The training of subnormal children is provided for.

The foregoing has been characterized as undoubtedly the most progressive and comprehensive school legislation ever enacted at one time by a southern state.

I am omitting a discussion of our obvious educational shortcomings many of which are not more conspicuous in the South than elsewhere, and which if not recognized and corrected may flower forth in a dangerous manner.

For instance, your child from six years onward spends more of his waking hours under the influence of his teacher than under the direct influence of his mother—and yet we are by way of suffering our children to be trained by young girls who carelessly take up teaching till they can find something better, or who lack the mental equipment to do higher paid work. It may be too much to expect that the pay of the individuals who have so very much to do with the shaping of our children's character should have their pay raised to that of elevator boys or lunch room waitresses; but, as has been observed by Prof. Brittain, every child is entitled to a good teacher whether every teacher is entitled to a good salary or not. The danger of our country is the Decline and Fall of Teaching. The teacher is the most important worker in the world. I am told that we are spending more money on automobile tires than on education.

Nor does medical education wait more on common school and secondary education than on collegiate education in the South. It is a regrettable circumstance that private indi-



viduals have given so little of their bounty to institutions of collegiate and university grade. If there be in the South traits of character and elements of citizenship which are the peculiar heritage of our people, and which deserve to be perpetuated, one cannot but lament the fact that so many of our young people find it necessary to leave our section to find adequate university pabulum for their expanding talents.

If we allow "the South" to include only 11 states, omitting Maryland, Missouri and Oklahoma because their educational problems differ from our own, we discover that this territory furnishes about one-fifth the total population of the United States, about one-sixth of the medical students, and is the home of somewhat less than one-sixth of the practicing physicians.

The white population of these eleven states is approximately the same as the population of the four states of Pennsylvania, West Virginia, Ohio and Indiana.

The South furnishes slightly fewer medical students than the four northern states named. New York State with about half the population is the home of more medical students than the whole southern territory combined.

While the South furnishes 1953 medical students it educates in its colleges 1605. Only two southern states, Louisiana and Tennessee, educate more medical students than they supply.

In Georgia and Virginia nearly as many students are educated as have their homes there.

It will doubtless surprise you to learn that last year 44 per cent. of the graduates either held a college degree before they began their medical work or else acquired it during the progress of that course.

As recently as 1910 only 15 per cent. of graduates held the baccalaureate degree. 35 per cent of the graduates of southern colleges held such a degree. While this figure for the South falls short of the general average, it is better than the percentage of the New York and Pennsylvania colleges, and is very little below that of the United States for the previous year.

Naturally this percentage will soon approach 100—a consequence of the two year college requirement for entrance, together with the increasing disposition of authorities to furnish opportunity for the combined course in arts and science and medicine.

You are familiar of course with the fact that medical colleges in the United States have been rated as A B and C in the supposed order of their merit, and that the relative number of colleges in Classes B and C has been gradually decreasing.

It cannot fail to gratify you to know that there is no Class C college in the South except one in Memphis (possibly now deceased). The 7 C colleges are located as follows: 3 in Missouri, 1 in Tennessee, 1 in Illinois and 2 in that home of erudition, Massachusetts—one of these last named being in Boston and the other in Cambridge itself.

It cannot fail further to gratify you to know that while there are 10 class B medical colleges in the United States the single one in the South is a negro college in Nashville.

Again comparing the South to the four states of Pennsylvania, Ohio, West Virginia and Indiana, we find that the southern territory is teaching in one college of inferior grade 18 white students, and the northern territory is teaching in 3 colleges of inferior grade 217 students. We can also discover if we wish that in New York and Pennsylvania, (with a population about the same as ours) there are 238 students in 2 colleges of inferior grade; and in Massachusetts (*mirabile dictu*) 112 students in colleges of the lowest grade.

Nor can one omit the indulgence of commenting on the fact that in Illinois where is the source of the propaganda for improvement (and where there are some of the best medical colleges) there are 367 students in 3 colleges of inferior grade. It is apparent, therefore, that the diploma mills infest, not the South, but those benighted centers of civilization like Boston and Cambridge Mass., to say nothing of the regions round about the citadel of the Council on Medical Education itself.

Moreover, you will probably be surprised to know that the graduates of more than one-



third of the medical colleges in the United States cannot practice in all the states in the Union. Some colleges are not recognized in one state, several in as high as 39 states, and one in 42 states.

It will again please you to learn that of the 16 white colleges in the eleven southern states every one is recognized in every state except the one small C college in Tennessee, already referred to, and a second one (not in Georgia) which does not meet the requirements in two states.

If, now, it be true, as it is, that our southern medical colleges need money, I point out to you the fact that the South is not the part of the country which is infested with commercialism in medical education. If it be true, as it is, that our general educational program has been hampered in the past, I call to your attention multiplying evidences of an awakening interest. If it be true, as it is, that our part of the country has by reason of the scourge of the civil war, and by reason of our Ethiopian onus, lacked in finance and lagged in industrial development, may I not remind you that there are some things that cannot be bought with money, and some things more to be desired than industrial supremacy?

We do not need to admit any relative inferiority in intelligence, or wisdom, or initiative, or certainly in morals or respect to law. Indeed history justifies our right to claim superiority in these respects. Some of you will recognize that I am paraphrasing a sentiment of Bishop Candler when I remind you that the greatest doers of all time have been southern men.

What *poets* more sublime than Homer and Virgil and Sidney Lanier and King David?

What *orators* more moving than Demosthenes, Cicero, Patrick Henry, Henry Grady, and the Apostle Paul?

What *generals* more renowned than Alexander, Hannibal, Julius Cæsar, Robt. E. Lee and Joshua?

What *lawyers* more profound than Solon, Justinian, Lyeurgus, James Madison, L. Q. C. Lamar and Moses?

What *doctors* more distinguished than Aes-

culapius, Hippocrates, Marion Sims, Crawford W. Long and St. Luke—all southern men?

Moreover, if we *do* have to suffer certain drawbacks which relate not to principle, but rather to money, *so be it*. You and I are living in, and are a part of, the very bulwark of our American civilization. God stay the day when we shall be permeated with the socialism and pointed with the anarchy which in too many parts of America foster strikes, subvert law, flout religion and defy the flag.

I spent the first week of the present year in one of the largest cities in the United States. You will recall that that was the week during which our Government gathered into its legal net scores of traitors and traducers for confinement and for deportation. Scanning the papers I saw that from coast to coast almost every city of major size contributed to the haul—except that there was no southern date line. It was a national story with no southern end.

I have been told that the American flag is the oldest flag in the world—that while there are of course older governments there is no government which has not from time to time made some change in its national emblem, so that ours is now the senior emblem of two hemispheres. I do not know if this is true, but the behavior of many of you during the past three years has convinced everybody that it is too old to take orders from any dynasty on the globe, and too old, moreover, to be brought home from France and polluted by the bolshevistic venom of a polyglot patriotism.

Standing as we are today at the threshold of a future where oracles are dumb and inspiration powerless to wing its flight—a future beset by gravest problems and uncertain as never before, it seems to me that to foster moral citizenship and genuine Americanism has come to be the peculiar function and opportunity of the South—an opportunity which I am sure it will discredit us to neglect, and which I am equally sure it will distinguish us to embrace.

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### TO THE MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA.

E. T. Coleman, M. D., Graymont, Ga.,  
President Medical Association of Georgia.

At the beginning of the recent session of the Medical Association of Georgia at Macon, very unfortunately for me, I was taken ill, developing a moderate fever, which necessitated my confinement in bed during the great-

er portion of the session. During the last day of the session I was on the floor of the convention only a part of the day.

You can never know what my regrets were when I was forced to leave the hall and go to my room during the election of officers, but was advised to do so by two or three physicians who saw me. Inasmuch as I did not have the privilege of making an address to the association after my election as President, I take this opportunity of issuing the following: To be chosen president of the Medical Association of Georgia is a worthy ambition, and in acknowledging my appreciation of this tribute I would say my heart throbs with an enduring gratitude, and a spirit of humility, as well as nothingness steals over men as I faintly realize the magnitude of the honor done me and the responsibility of the trust reposed in me when you placed in my hands the highest office within your gift.

I speak to you out of my heart when I declare there is no organization under God's skies I love more abidingly or promise more faithful allegiance to than this Association, *save* that institution set up by the lowly Nazarene when He said, "Thou art Peter, and upon this rock I will build my church, and the gates of Hell shall not prevail against it."

I would be, indeed, a stranger to gratitude did I not confess that my heart was full and bubbling over with the spirit of intense appreciation, for I feel that the profession of Georgia has been extremely kind and generous to me. Though I beg to testify that when I have been elected to fill any of the various positions to which I have been chosen in the association, I have ever felt there were others more worthy and capable than myself, yet I trust there were none whose soul was more consecrated to its ideals, or more burdened with its welfare.

I here ask permission to reproduce Article Two of the Constitution and By-Laws of the Medical Association of Georgia, and commend it to each member of the Association. Article Two reads as follows: "The purpose of this Association shall be to federate and bring into one compact organization the en-

tire medical profession of the State of Georgia to elevate medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interest of its members and protect them against imposition; to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of diseases and in prolonging and adding comfort to life."

The purposes of the Association as set forth in this Article are too comprehensive and varied for any single member, within his own personality, to attempt to carry out in all its aims, but every one according to the measure of his fitness should do his share and his best in the accomplishment and the achievement of these great, grand and glorious purposes.

As Paul the Apostle would say to the Roman brethren 12:6, "Having then gifts differing according to the grace that is given to us." Let us one and all labor in whatever sphere we are best adapted or fitted, with the assurance that there is work and glory enough for us all. Each and every one of these purposes as outlined are holy, and so necessary as to be well nigh imperative, which makes it difficult in the extreme, to emphasize one above another, but I am almost persuaded to say that I would be happy if my administration should mark the beginning of an era that would specially "promote friendly intercourse among physicians."

If I had the power I would make one declaration with such emphasis and in such thunder tones that it would go glimmering through all ages of the Medical Association of Georgia, and that declaration would be for a better feeling, a closer walk, a purer friendship, and a united brotherhood, "Let brotherly love continue."

In conclusion I invite and will gladly welcome the aid and support of every member of the Association in the advancement of its best

interest, and promise to defend and uphold the Association with all the fidelity my soul possesses.

My heart is with you. I thank you.

Obediently,

E. T. COLEMAN.

P. S.—May I add one last and final appeal in carrying out the first purpose mentioned in Article Two above referred to; "to federate and bring into one compact organization the entire medical profession of the State of Georgia." While we point with a high degree of pride to the vigilant and splendid work done along the lines of organization, nevertheless, when we remember that less than 50 per cent. of the entire medical profession of the State are now members of our Organization, we begin to appreciate how far short we have fallen of the goal of our ambition. To this end I earnestly appeal to every officer and member of this Association to do his utmost to add to the roll every physician in the State who deserves membership in the Medical Association of Georgia.—E. T. C.

## MINUTES MEDICAL ASSOCIATION OF GEORGIA.

Seventy-First Annual Session, Held at  
Macon, April 5, 6 and 7, 1920.

April 5—First Day—Morning Session.

The association met in the ballroom of Hotel Dempsey, and was called to order at 9:45 A. M. by the President, Dr. E. G. Jones, Atlanta.

Prayer was offered by Rev. T. D. Ellis.

Dr. C. H. Richardson, Chairman of the Local Committee of Arrangements, stated that the general meetings of the association would be held in the ball room, and the subsections in the assembly room on the ninth floor of Hotel Dempsey.

He announced that the annual banquet of the association would be held from 6:30 to 8 P. M. in the grill room of Hotel Dempsey, Thursday, and at 9 P. M. there would be a public meeting held, which would be addressed by Dr. Harvey R. Gaylord, Buffalo, New



York, on the prevention of cancer. He also announced that Honorable Hugh M. Dorsey, Governor of Georgia, would deliver a public address.

The Secretary made a verbal report of the proceedings of the House of Delegates. He called attention to certain recommendations made in the report of the Secretary-Treasurer which the House of Delegates felt should be postponed until a larger attendance was present and that these recommendations would come up at the business session Friday morning.

The reading of papers was proceeded with.

Dr. M. C. Pruitt, Atlanta, read a paper entitled "Snapping Hip with Report of Cases."

This paper was discussed by Dr. Toepel, after which the discussion was closed by the essayist.

Dr. W. H. Lewis, Rome, followed with a paper entitled "Medical Aspects of Surgical Patients."

Dr. Morrell asked permission, which was granted, to speak on the establishment of a state hospital association. He stated that such an association had been organized yesterday (May 4), representing some 1,500 or 1,400 beds. The association would co-operate with the Medical Association of Georgia in any way possible to improve general medical conditions.

Dr. J. L. Campbell, Atlanta, read a paper on "Early Diagnosis the Means of Reducing the Death Rate From Cancer."

Dr. C. C. Harrold, Macon, read a paper on "Cancer; Its Treatment by Radium."

These two papers were discussed together by Drs. Schmeiser, Lewis, and Jones, after which the discussion was closed by the authors of the papers.

Dr. W. L. Cooke, Columbus, read a paper on "Spinal Anesthesia, With Report of Cases."

Discussed by Dr. Campbell.

Dr. Emory R. Park, LaGrange, read a paper entitled "The Administration of Ether."

On motion, the association adjourned until 2 P. M.

### First Day—Afternoon Session.

The general session of the association reconvened at 2 P. M. and was called to order by the President.

Dr. Theodore Toepel, Atlanta, read a paper entitled "Mobilization versus Immobilization," which was discussed by Dr. Davison and by the essayist.

Dr. E. C. Thrash, Atlanta, followed with a paper on "Diagnostic Problems of the Chest."

Discussed by Drs. Elkin, Stovall, Allen, a member, and discussion closed by the essayist.

Dr. George S. Murray, Columbus, read a paper entitled "Gunshot Wounds of the Chest."

Dr. T. C. Davison, Atlanta, read a paper on "Gunshot Wounds of the Chest and Their Treatment."

These two papers were discussed together by Dr. Jones and in closing by the essayists.

Dr. R. H. Stovall, Macon, read a paper on "An Analysis of A Series of Heart Lesions with Special Reference to Etiology and Treatment."

This paper was discussed by Drs. Thrash and Cartledge, and in closing by the essayist.

Dr. Arch Elkin, Atlanta, read a paper on "The Demonstration of Dilated Aorta by Physical Examination."

Dr. George Y. Massenburg, Macon, read a paper on "The Importance of Ureteral Stricture in Abdominal Diagnosis."

Discussed by Drs. Harbin and Cooke, after which the discussion was closed by the essayist.

Dr. R. M. Harbin, Rome, read a paper entitled "Review of Forty-Three Gall-Bladder Operations With Reference to End Results," which was discussed by Drs. Jones, Davison, Battey, and in closing by the essayist.

On motion, the association adjourned until 8 P. M.

### First Day—Afternoon Session—May 6th.

The Georgia Pediatric Society (Pediatric Section, Medical Association of Georgia), was called to order by the President, Dr. L. B. Clarke, Atlanta.

The following papers were presented:

Experimental Work in Mental and Physical Deficiencies and Birth Paralysis in Infancy with Reports of Cases—L. B. Clarke. Discussed by Wm. Engelbach, St. Louis; W. A. Mulherin, Augusta.

No. 2. Aims and Scope of the Georgia Pediatric Society, by T. B. Walker, Macon. Discussed by W. A. Mulherin, Latimer Rudolph, W. L. Funkhouser.

No. 3. Infant Feeding for the General Practitioner—W. L. Funkhouser. Discussed by W. A. Mulherin, S. A. Visanska.

No. 4. Complementary Feeding of Babies—W. A. Mulherin. Discussed by M. A. Clark, A. J. Waring.

No. 5. Some Essential Factors in Infant Feeding—M. M. McCord, Rome. Discussed by A. J. Waring, Garnett Quillian, Latimer Rudolph, O. L. Miller.

No. 6. Symptoms of Dehydration of Tissue Arising in Diseases of Children—Frank Mulherin, Augusta. Discussed by E. C. Cartledge, W. A. Mulherin, W. L. Funkhouser.

No. 7. Pyelitis—A. J. Waring, Savannah. Discussed by Latimer, Rudolph, W. A. Mulherin, Benj. Bashinski.

No. 8. Cardiac Conditions in Children, Their Significance and Prognosis—Benj. Bashinski, Macon. Discussed by A. J. Waring, W. A. Mulherin, E. C. Cartledge, Latimer, Rudolph.

No. 9. Diphtheria, Symptoms, Prophylaxis and Treatment with Special Reference to Intubation Cases—C. A. Almand, Atlanta. Discussed by W. N. Adkins, W. A. Mulherin, E. C. Cartledge.

No. 10. A New Navel Band and Better Way of Putting a Diaper on a Baby—By S. A. Visanska.

#### First Day—Evening Session.

The association reconvened at 8 P. M. and was called to order by the President.

Dr. William Engelbach, St. Louis, Missouri, read a paper (by invitation) entitled "Disorders of the Pituitary Gland."

Dr. W. L. Thornton, Atlanta, read a paper

on "Treatment of Chronic Osteomyelitis and Bone Sinuses." Discussed by Drs. Schmeiser, Massenburg, and Davison.

Dr. Harry C. Schmeiser, Atlanta, read a paper entitled "Report of a Case of Malignant Teratoma."

Dr. James J. Clark, Atlanta, read a paper on "Bone Diseases by the X-Ray."

Drs. Watts and Holmes, Augusta, presented a joint paper on "Pneumo-Peritoneum."

On motion, the association adjourned until 9:30 A. M., Thursday, May 6.

#### May 6—Second Day—Morning Session.

The First Section met at 9:30 A. M., and was called to order by Vice-President Dr. W. H. Hendricks, Tifton.

The following program was presented:

(Discussions are omitted because no stenographer was present in this section.—A. H. B.)

Dr. N. P. Walker, Milledgeville, read a paper on "The Nervous and Mental Clinic at Macon."

Dr. Jas. N. Brawner, Atlanta, presented a paper entitled "The Importance of Determining the Causal Factor in Mental Diseases."

Dr. R. C. Swint, Milledgeville, read a paper on "Some Modern Psychiatric Problems."

Dr. Lewis M. Gaines, Atlanta, presented a paper on "Epidemic Encephalitis."

Dr. E. Bates Block, Atlanta, read a paper entitled "The Blood Pressure in a Case of Intermittent Claudication."

Dr. Geo. M. Niles, Atlanta, presented a paper and X-Ray plates on the subject, "Roentgen-Ray Study of the Abdominal Organs Following Oxygen Inflation of the Peritoneal Cavity."

Dr. M. F. Morris, Jr., Atlanta, read a paper on "The Treatment of Hyperthyroidism."

#### May 6—Second Day—Morning Session.

The Second Section met at 9:30 A. M., and was called to order by Vice-President, Dr. J. M. Smith, Valdosta.

Dr. Newton Craig, Atlanta, read a paper on "Bronchial Disturbances of Nasal Reflex Origin."

Discussed by Drs. McDougall, Oertel, and in closing by the essayist.

Dr. J. C. McDougall, Atlanta, read a paper entitled "Secondard Implantations in the Sunken Orbit After Enucleation of the Eye."

Discussed by Drs. Roy, Schmeiser, Fort, Minchew, and in closing by the essayist.

Dr. T. E. Oertel, Augusta, read a paper entitled "The Differential Diagnosis of Trachoma and Follicular Conjunctivitis (Eye Adenoids) in children."

Discussed by Drs. Fort, Roy, Smeiser, and in closing by the essayist.

Dr. Dunbar Roy, Atlanta, followed with a paper entitled "Is the Frequent Removal of the Tonsils Justifiable?"

Discussed by Dr. Craig.

The time having arrived for the delivery of the President's Address, Dr. W. H. Hendricks, Tifton, Vice-President, took the chair, and the President, Dr. E. G. Jones, Atlanta, delivered his address. He selected for his subject "Medical Education in the South."

President Jones called upon the councilors to give brief accounts of the work they had done in their respective districts, and the following responded: First District, Dr. A. J. Mooney, Statesboro; Second District, Dr. C. K. Sharp, Arlington; Third District, Dr. V. O. Harvard, Arabi; Fourth District, Dr. H. W. Terrell, LaGrange; Sixth District, Dr. J. O. Elrod, Forsyth; Seventh District, Dr. George B. Smith, Rome; Eighth District, Dr. W. E. McCurry, Hartwell; Ninth District, Dr. L. C. Allen, Hoschton; Tenth District, Dr. H. D. Allen, Milledgeville.

On motion, which was duly seconded and carried, the association adjourned until 2:45 P. M.

Dr. L. W. Grove, Atlanta, read a paper entitled "Local Anesthesia in Abdominal Surgery with Synopsis of 33 Cases."

These two papers were discussed by Drs. Weaver, Boland, Robbins, after which the discussion was closed by the authors of the papers.

Dr. O. L. Miller, Atlanta, read a paper entitled, "Fractures of the Lower End of the Humerus Involving the Elbow Joint," which was discussed by Drs. Weaver, Toepel, and in closing by the essayist.

On motion, the association adjourned until 9 P. M.

### Second Day—Afternoon Session.

The general session of the association reconvened at 2:45 P. M., and was called to order by the President.

Dr. G. D. Ayer and Dr. J. H. Buff, Atlanta, read a joint paper entitled, "Removal of Foreign Bodies from the Esophagus and Bronchial Tree."

Dr. C. L. Pennington, Macon, read a paper on "Extraction of Foreign Bodies from the Trachea, Bronchi, and Esophagus; Report of 10 Cases in Detail."

Discussed by Drs. Fort, Ayer and Pennington.

Dr. W. R. Holmes, Atlanta, read a paper on "Retroperitoneal Fibrolipomata."

Dr. Frank K. Boland, Atlanta, read a paper entitled, "Report of Cases: Traumatic Rupture Through the Rectum; Round Worms in the Appendix."

Discussed by Drs. Selman, Block, and in closing by the essayist.

Dr. G. W. Quillian, Atlanta, read a paper on "The Obstetrician's Obligation."

Dr. W. A. Selman, Atlanta, read a paper on "Local Anesthesia in Gall-Bladder Surgery."

### Public Health Section—Thursday Afternoon, May 6.

Meeting called 3:00 P. M. by President J. P. Bowdoin.

1. Address of President: Resume—Public Health Work in Georgia.

2. Georgia's Anti-Malarial Campaign: T. F. Abercrombie.

Discussion—Dr. C. C. Harrold, Macon, "Who Distributes Educational Literature to public Schools?"

Discussion—Dr. J. T. Calvin, "What Time of Day Should Quinine be Given?"

Dr. Gordon, of Jesup, replies to first question, "Literature Distributed by State Board of Health."

3. Work of the U. S. Public Health Service in relation to the Bureau of War Risk Insurance and Federal Board for Vocational Education: Geo. S. Pitcher, M. D., U. S. P. H. S.



Discussion—Dr. C. C. Harrold, Macon.

Discussion—Dr. A. M. Dimmock, Atlanta.

Reply—By Dr. Pitcher.

4. Rabies in the South: T. F. Sellers.

5. Abeyant Hospital for Emergent Epidemics—was to be read by Dr. R. L. DeSausure, Rome, but was substituted by Dr. J. D. Applewhite. Discussed by Dr. Applewhite.

6. State Board of Public Welfare: Dr. J. G. Harrison, Mercer University.

Election of Officers:

Dr. Joe P. Bowdoin—Elected President.

Dr. J. D. Applewhite—Elected Secretary.

### Second Day—Evening Session.

The meeting was held in the Lanier High School Auditorium and was called to order at 9 P. M. by the President.

Dr. Harvey R. Gaylord, Director of the State Institute for the Study of Malignant Disease, Buffalo, New York, delivered a public address on "The Prevention of Cancer."

Hon. Hugh M. Dorsey, Governor of Georgia, reviewed the work done by the legislature during his administration to further the cause of research in Georgia.

Adjourned.

### May 7—Third Day—Morning Session.

The association met at 9 A. M. and was called to order by the President.

Dr. C. W. Roberts, Atlanta, read a paper entitled, "Consideration of Breast Tumors, with Special Reference to So-Called Cystic Mastitis."

Dr. W. W. Battey, Jr., Augusta, read a paper entitled, "Hypertrophic Stenosis of the Pylorus," which was discussed by Drs. Mulherin and Niles, after which the discussion was closed by the essayist.

Dr. H. M. S. Adams, Atlanta, read a paper on "Ectopic Pregnancy."

Dr. W. F. Wells, Atlanta, read a paper on "Tubal Pregnancy." Both papers were discussed by Drs. Quillian, Shallenberger, and Boland.

Dr. L. C. Allen moved that, owing to the lateness of the hour and the further fact that the report of the House of Delegates would probably elicit considerable discussion, discussion on the remainder of the papers on the program be dispensed with in order to allow

all papers listed to be read. Motion seconded.

It was moved to amend that discussions be limited to two minutes.

The amendment was seconded, accepted, and the original motion as amended was put to a vote and carried.

Dr. W. A. Cole, Savannah, read a paper entitled, "The Relief of Menorrhagia and Metrorrhagia by Roentgen Treatment."

Discussed by Drs. Hall, Derr, and in closing by the essayist.

Dr. John Funke, Atlanta, read a paper on "Observations and Suggestions in Tissue Diagnosis," which was discussed by Dr. Bunce and in closing by the essayist.

The Secretary read the minutes of the Council meeting and the report of the proceedings of the House of Delegates. (For particulars, see proceedings of the House of Delegates.)

The President: The report of the House of Delegates is before you. It seems to the chair that the main things in the report which require attention and action of the House of Delegates are, first, to set aside one evening at each annual meeting, for the benefit of the public, for discussion on cancer or any other public health problem. Second, the appropriation of two thousand dollars in connection with medical defense activities, and third, the raising of the annual dues from three dollars to five dollars.

Dr. M. A. Clark: The minutes as read by the Secretary do not make exactly clear the raising of the dues. You will recall that we have an article in the Constitution which provides that the annual fee shall not exceed three dollars. Two years ago a motion was made to amend that fee, and it went over until last year, and at a meeting of the House of Delegates it was postponed until this meeting. At this meeting of the House of Delegates it was passed so that it would now read something like this: "Funds shall be raised per capita from each component society; the amount of the assessment shall not exceed the sum of five dollars per capita."

The Secretary: The House of Delegates recommended to the association that the annual dues be increased not to exceed five dol-



lars, which was seconded and carried. Another motion was passed that the House of Delegates recommends to the association that the dues be increased to five dollars for the ensuing year.

Dr. L. C. Allen: In other words, we have two definite propositions, one of which is to amend the Constitution so as to give this body authority to increase the dues to as much as five dollars, and the other is a recommendation that the House do that.

Dr. Clark: Before we can fix the dues next year at five dollars we must first amend the Constitution. The House of Delegates has amended the Constitution and has fixed the fee at five dollars subject to the ratification of the association. I therefore move the adoption of the report of the House of Delegates.

Seconded and unanimously carried.

The report of the Committee on Public Policy and Legislation was called for.

The Secretary moved that the report of this committee be referred to the Committee on Public Policy and Legislation to be appointed to act for the ensuing year.

Seconded and carried.

Dr. J. W. Palmer moved that the Committee on Public Policy and Legislation be increased to one member from each county in the state and to have the committee work as a unit in fighting objectionable medical legislation. Seconded by Dr. Campbell.

Dr. M. A. Clark moved that this motion be referred to the House of Delegates where it belongs.

Seconded and carried.

Dr. Garnett W. Quillian, Atlanta, presented the following resolution which was seconded by several members and unanimously adopted:

Whereas, in the Hall of Fame in the Capitol at Washington, Georgia has no statue to commemorate the memory of any of her distinguished sons, and

Whereas, one of the sons of Georgia in the medical profession has distinguished himself as a benefactor to the human race by making it possible for the development of modern surgery and obstetrics, in the discovery of ether anesthesia; therefore, be it

Resolved, That the Medical Association of Georgia, in annual meeting assembled, petition the legislature of the State of Georgia to make at its next meeting an appropriation sufficient to place at least one statue from Georgia in the Hall of Fame at Washington, and that this statue be in commemoration of Crawford W. Long, whose distinguished service to humanity has won for him merited praise as one of the greatest benefactors of all time.

G. W. Quillian, M. D.

R. H. Stovall, M. D.

E. C. Thrash, M. D.

Dr. Stewart R. Roberts, Atlanta, read a paper entitled "Encephalitis Lethargica," which was discussed by Drs. Crenshaw, Cartledge, Funke, and in closing by the essayist.

Dr. Marion T. Benson, Atlanta, read a paper entitled, "Utility of Influenza-Pneumonia Vaccine in Pregnancy and Post-operative Conditions."

The paper was discussed by Dr. Quillian and in closing by the essayist.

On motion the association adjourned until 3 P. M.

### Third Day—Afternoon Session.

The association reconvened at 3 P. M. and was called to order by the President.

The election of officers being the first order of business, the President appointed as tellers Drs. Davis, Palmer, Dean, McArthur, Murphey and Clark.

The balloting resulted in the election of the following officers:

President, Dr. E. T. Coleman, Graymont; First Vice-President, Dr. T. E. Oertel, Augusta; Second Vice-President, Dr. Fred L. Webb, Macon; Secretary-Treasurer, Dr. Allen H. Bunce, Atlanta. Place of meeting, Rome. Delegates to the American Medical Association, Dr. E. G. Jones, Atlanta, and Dr. William C. Lyle, Atlanta. Alternate delegates, Dr. J. G. Dean, Dawson, and Dr. M. A. Clark, Macon.

Councilor of the Ninth District, Dr. L. C. Allen, Hoschton; Councilor of the Tenth District, Dr. E. E. Murphey, Augusta; Councilor of the Eleventh District, Dr. R. C. Woodard, Adel; Councilor of the Twelfth District, Dr. T. C. Thompson, Vidalia, and

Councilor of the Fifth District. Dr. E. C. Thrash, Atlanta.

On motion of Dr. Thrash, a vote of thanks was extended to the Local Committee of Arrangements for their hospitality and entertainment.

As there was no further business to come before the meeting, on motion, which was duly seconded and carried, the association then adjourned to meet in Rome in 1921.

WILLIAM C. LYLE, M. D.,

Secretary.

## FIRST MEETING OF THE HOUSE OF DELEGATES.

Wednesday Morning, May 5, 1920.

The house of delegates met at 9:30 A. M. and was called to order by the President, Dr. E. G. Jones, Atlanta.

### Report of the Council.

The Secretary stated that the Council met last evening (May 4) with the Chairman, Dr. E. T. Coleman, in the chair.

The Secretary read the report of the Secretary-Treasurer.

Dr. Woodard moved that the matter of increasing the dues to \$5.00 be recommended to the House of Delegates for adoption. Seconded and carried.

It was moved that the action of the President in filling vacancies in the Council be confirmed. Seconded and carried.

The Chairman ruled that these appointments to fill vacancies be only made until the next annual meeting of the Association.

An Auditing Committee, consisting of Drs. L. C. Allen, V. O. Harvard, and C. K. Sharp was appointed to audit the books of the Secretary-Treasurer.

The Auditing Committee, subsequently presented the following report:

### Report of the Auditing Committee.

We the Committee appointed to audit the accounts of the Secretary-Treasurer for the Council have examined the records of this office and find them correct.

The Secretary reports that in addition to the funds on hand, the Association owns several hundred dollars worth of office equipment. We recommend that the incoming Secretary be required to receipt for this when turned over to him, and that in future a record of this equipment be furnished each year to the Council of the Association.

L. C. ALLEN, Chairman,  
V. O. HARVARD,  
C. K. SHARP.

Dr. Harrold moved that the report of the Council be received. Seconded and carried.

Owing to the large number of papers to be presented at this meeting of the Association, the Secretary said that the scientific work had been divided into sub-sections, and stated that this action of the Committee on Scientific Work should be approved by the house of delegates.

Dr. Allen moved that the action of the Committee on Scientific Work be approved. Seconded and carried.

Concerning that portion of the report of the Council in raising the dues to \$5.00 per annum, Dr. Thrash moved that the members of the house of delegates discuss the matter with the members of the Association whom the delegates represent and act upon it definitely Friday morning. Seconded by Dr. McCurry and carried.

Dr. J. L. Campbell asked permission, which was granted, to address the house of delegates on the subject of holding a public meeting on Thursday evening at each annual meeting of the Association for the purpose of discussing the subject of cancer or any other Public Health problem.

Dr. Allen moved that Thursday night of each annual meeting be a public meeting devoted to the consideration of some Public Health subject. Seconded by Dr. Harvard and carried.

The reports of Committees of Scientific Work and Arrangements were received.

On motion, duly seconded and carried, the house of delegates adjourned until Friday morning.

**SECOND MEETING OF THE HOUSE OF DELEGATES.****May 7, 1920.**

The House of Delegates met at 9:40 A. M., and was called to order by the President.

The minutes of the previous meeting were read and approved.

The President stated that the subject for consideration was the raising of dues.

The Secretary read an extract from his annual report relative to raising the dues to five dollars, one dollar of which was to protect members of the association against malpractice suits, and stated that the Council recommended to the House of Delegates that such action be taken.

Dr. McCurry moved that the matter of raising the dues to five dollars be postponed until after the presentation of the report of the Committee on Medical Defense.

Seconded by Dr. Davis and carried.

Dr. M. A. Clark, Chairman of the Committee on Medical Defense, stated that the committee had been helpless to do anything on account of lack of funds. One of the great needs of the committee had been the employment of an attorney. Fortunately for the committee, until recently few suits had been brought. The committee had been able to get wise friends to take the matters up with the parties interested and the suits had been withdrawn. In the last six months six damage suits had been reported in different parts of the state. These suits were of such a character that the committee could not get them settled as easily as before, and one of the great needs was an attorney, and the committee had not received instructions to spend a great amount of money. Another thing: The committee had no right to spend money except upon the recommendation of the Council. The committee, therefore, appealed to the association to provide funds to carry out its work. Unless the association could provide funds by which the committee could engage and retain a reliable attorney for the work, the Committee on Medical Defense would amount to nothing. Judging from the success of the work in other states, it should be helpful to the association. For some reason the so-called advocates of the law were

more ready to take up damage suits, and if they were successful there would be more damage suits. It was going to be a big problem, and it was necessary for the association to spend some money to meet it. The House of Delegates should give the committee money in order to retain proper counsel to make defense and to assist doctors in their suits for malpractice.

Dr. J. O. Elrod moved that the House of Delegates recommend to the association that two thousand dollars or such portion thereof as necessary be set aside for the use of the Committee on Medical Defense. Seconded.

In reply to a question, the Secretary stated that two thousand dollars would probably take care of the malpractice suits for the coming year.

The motion of Dr. Elrod was put to a vote and carried.

Dr. Harrold moved that the House of Delegates recommend to the association that the annual dues be increased to five dollars, beginning the first of next year. Seconded.

Dr. Stanford moved as an amendment that the dues be increased to four dollars. Seconded.

On being put to a vote, the amendment was declared lost.

The original motion of Dr. Harrold was then put to a vote and carried.

The Secretary moved that the report of the Committee on Public Policy and Legislation be made at the general session.

Seconded and carried.

Adjourned.

**REPORT OF SECRETARY-TREASURER.****W. C. Lyle, M. D., Atlanta, Ga.**

Gentlemen:

In submitting this, my tenth annual report, I again wish to remind the Association of the necessity for considering an increase in the annual dues of its members. I feel that I may do this at this time in that I do not intend to allow my name to be used as a candidate for the office of Secretary-Treasurer of the Association. In retiring I am pleased to report that our paid-up membership as of May 1, 1920 is 1,334, which is somewhat in excess of the membership at the



time of the annual meeting of any year during my term of office. We likewise have on hand more funds than at any time in the history of the Association, but this may be accounted for in that the date of our annual meeting is somewhat later than formerly.

I have made every effort to conserve the funds of the Association for the reason that damage suits against our members are being brought with much more frequency than formerly.

From my personal observation and careful study of the situation I feel that I may be pardoned for making the following suggestions for the earnest consideration of the Association:

First, That the annual dues of the Association be raised to five dollars per annum.

Second, That the sum of one dollar per annum of the dues of each member of the association be placed in the hands of the committee on legal defense for the purpose of establishing a sinking fund for the use of this committee in defending our members against unjust damage suits. This committee has been, and is now, seriously hampered in its work for the reason that the Association has never been in a position to employ a regular attorney to do its work in defending our members and in the prosecution of illegal practitioners in Georgia. In my opinion such a step as this must be taken at this meeting, or the by-law providing for a committee on legal defense must be abolished. I would dislike very much for the Association to take this latter action, as a majority of the State Associations provide this protection, and beside it would tend to again make our State a haven for all classes of illegal Charlatans.

Third, That the sum of one dollar per annum of the dues of each member of the Association be placed in the hands of the Council of the Association for the purpose of defraying the expenses of the Council in organizing and maintaining the membership of the Association and the assisting in improving and enlarging our State Journal which is conducted and directed by the Council.

For years the Council has expended both time and money for the welfare of the Association with practically no reimbursement and

it is unjust to these men for the Association to longer require this personal sacrifice.

In case the Association sees fit to adopt these suggestions I shall feel that I have accomplished work of some value to the profession during my tenure of office and will gladly turn over the reins of the active work in the Association to my successor.

In doing this I wish to thank the officers and members of the Association for their active co-operation and earnest assistance during the years of my official connection with Association affairs.

### Financial Report.

Balance on hand from last year (April 13, 1919) .....	\$2,740.32
Received since that date.....	7,191.83

Total.....	\$9,932.15
Expenditures as per vouchers.....	\$5,408.81
Balance on hand, May 1, 1920.....	4,523.34
Total.....	\$9,932.15

### Expenditures.

#### As Per Vouchers.

22—Publishers Press .....	\$ 425.66
23—Third National Bank .....	30.00
24—Post Office .....	25.00
25—Wm. Whitford .....	171.26
26—St. Louis Button Co. ....	37.25
27—W. C. Lyle (Salary) .....	300.00
28—Fielder & Allen .....	11.45
29—Postmaster .....	1.60
30—J. P. Stevens Engraving Co.....	16.15
31—W. C. Lyle (Salary), April and May, last year .....	300.00
32—Western Union Telegraph Co.....	18.12
33—R. R. Daly (Pub. Pol. & Leg.).....	100.00
34—Postmaster .....	32.34
35—D. R. Hook (Pub. Pol. & Leg.).....	2.67
36—Postmaster (Pub. Pol. & Leg.).....	20.00
37—Eureka Mul. Co. (Pub. Pol. & Leg.).	28.50
38—Cash, Office Supplies .....	1.50
39—So. Bell T. & T. Co. (P. P. & L.)....	6.38
40—E. P. Merritt (P. P. & L.).....	100.00
41—Publishers Press .....	216.00
42—Mallet & Bell (Med. Def.).....	50.00
43—Byrd Printing Co. ....	28.85
44—Wrigley Engraving Co. ....	36.70
45—C. K. Sharp, Councilor .....	22.63
46—W. E. McCurry, Councilor.....	13.32
47—L. C. Allen Councilor.....	10.00
48—H. W. Terrell, Councilor .....	7.00
49—Bennett Stamp Co. ....	.50
50—Third National Bank .....	3.00
51—Southern Bell T. & T. Co.....	1.50
52—Addressograph Die Machine .....	113.16
53—Mrs. Irene Thompson, Ad. Com.....	15.00

54—Index Printing Co. ....	743.96
55—Fielder and Allen .....	21.15
56—Postmaster .....	10.00
57—Underwood Typewriter Co. ....	.90
58—Bayless Office Equipment Co. ....	1.50
59—Secretaries Club .....	7.00
60—Two Cent Letter Co.....	3.00
61—Stamps .....	2.00
62—W. C. Lyle (Salary) .....	750.00
63—Underwood Typewriter Co. ....	1.00
64—Mallet & Bell, Med. Def.....	50.00
65—Byrd Printing Co. ....	12.00
66—Fielder & Allen .....	1.00
67—Index Printing Co. ....	224.36
68—Postmaster .....	3.20
69—E. T. Coleman, Councilor, 3 years...	100.00
70—Dahls, Flowers Councilor Merritt...	10.00
71—Error. No draft.	
72—Postmaster .....	25.00
73—Stamps .....	10.00
74—W. C. Lyle (Salary) .....	300.00
75—Underwood Typewriter Co. ....	5.50
76—Index Printing Co. ....	394.42
77—Anthony Print Shop .....	3.00
78—Journal Engraving Co. ....	16.28
79—Third National Bank .....	18.00
80—W. C. Lyle, Salary .....	300.00
81—Postage .....	10.00
82—Stamped Envelopes .....	40.00
83—Secretaries Club .....	5.00
84—J. P. Stevens Engraving Co.....	19.50
85—Index Printing Co. ....	35.51
86—Stewart R. Roberts .....	100.00
87—Not issued.	
88—Third National Bank .....	42.00
	<hr/>
	\$5,410.82
By forced balance (excess on hand).....	2.01
	<hr/>
	\$5,408.81

### MEETING OF COMMITTEE ON MEDICAL DEFENSE.

The Chairman of the Committee on Medical Defense called a meeting of the committee on May 26, in the office of the Secretary. Those present were:

Dr. M. A. Clark, Macon, Chairman,

Dr. E. C. Davis, Atlanta,

Dr. V. O. Harvard, Arabi, Chairman of the Council,

Dr. Allen H. Bunce, Atlanta, Secretary.

Absent, Dr. Eugene E. Murphy, Augusta.

The committee was called to order by the Chairman, Dr. Clark, and many matters of importance to the Association in reference to medical defense were considered.

Mr. Owens Johnson, of Atlanta, was selected as attorney for the Association.

It was the unanimous opinion of the committee that physicians should be very reluctant to criticize the treatment of and results obtained by other physicians until all the facts in a given case are known. Careless criticism of your brother physician lends aid to those seeking to bring unjust claims against him. Unjust demands and suits are being brought against physicians with increasing frequency and it is the duty of every member of the profession to co-operate with and aid those who are unjustly criticized rather than to heap "insult upon injury."

On account of these facts the insurance against claims for mal-practice which the Medical Association of Georgia affords its members is one of its most important features. This applies to all members alike wherever they may be pursuing the practice of their profession or whatever may be their line of work.

As soon as any member of the Association has a claim brought against him he should immediately communicate with the Secretary stating in full all the facts in the case. This will enable the committee to take the proper steps so that each member shall receive the attention to which he is entitled.

### MARRIAGES.

William Henry Moncrief, Colonel, Medical Corps, United States Army, to Miss Utah Lee Ensley, both of Washington, D. C., May 16, 1920.

\* \* \*

Warren A. Coleman, M. D., to Miss Christine Edwards, both of Eastman, Ga., May 1, 1920.

**THE JOURNAL**

OF THE

**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia

**ALLEN H. BUNCE, M. D., Editor**

Office of Publication: 822 Healy Bldg., Atlanta, Ga.

**JUNE 1920****Editorial Department****THE MACON MEETING.**

The seventy-first annual meeting of the Medical Association of Georgia at Macon was a good meeting. It was by no means a record-breaker but every one came early and stayed late and seemed to be there for the purpose of having a good time for himself and to aid everyone else in accomplishing the same purpose. There were 437 members registered. The arrangements for the meeting were complete, the place of meeting was conveniently located and the halls in which the sessions were held were well adapted to the purpose.

The House of Delegates was well attended and had some important business to transact, the most important of which was the recommendation to the Association that the Constitution be changed so as to permit raising the dues to \$5.00 and that the By-Laws be amended so as to make the dues this amount for the ensuing year. This was done after a statement was made by the Secretary to the effect that the Medical Defense feature of the Association would have to be discontinued unless more money could be procured. The Chairman of the Committee on Medical Defense, Dr. M. A. Clark, stated that the committee was powerless on account of having no funds at its command. In view of this fact it was recommended to the Association that the sum of \$2,000.00, or as much thereof as may be found necessary for the ensuing year, be set aside for the use of this committee. These recommendations were subsequently adopted by the Association.

These measures defend all members of the Medical Association of Georgia against unjust claims for mal-practice—a feature well worth many times what it costs to become a

member. The moral effect of having the Medical Association of Georgia back of us in all our endeavors is worth many times more than any insurance policy against mal-practice in existence. A man is a derelict to himself and his associates if he is eligible for membership and does not avail himself of the opportunity.

All sections of the scientific meetings were well attended and the discussions of the papers were exceedingly interesting. The array of titles was above the average and each subject was handled well. The percentage of men constantly in the auditorium during the sessions far exceeded such attendance in previous meetings. On Wednesday evening Dr. Wm. Engelbach, an invited guest, gave an illustrated lecture on "Disorders of the Pituitary Gland." He handled his subject well, but was limited in time which made it impossible for him to make the subject matter in hand entirely clear to those not already familiar with it. This was unfortunate. When we invite a guest again let's find out in advance the amount of time that will be required to present his subject, and if this cannot be given, we should make other arrangements. On Thursday evening Dr. Harvey R. Gaylord delivered a public lecture on the control of cancer. This was well attended and did much to spread needed knowledge on the subject. In this connection it is of importance to remember that the Association, upon recommendation of the House of Delegates, has set aside one evening at each annual session for a public meeting on some subject of general interest.

The local committee on arrangements overlooked nothing to make the meeting a success. They were on the job every minute. The physicians of Macon were exceedingly gracious in their many courtesies to the visiting physicians. The banquet given by the Bibb County Medical Society to the Association was one of the best we've ever attended.

Everyone who attended this meeting must have left with the feeling that he had had an enjoyable occasion, a restful period, a few days of real happiness and good fellowship, and must have returned to his office with a feeling of greater determination to do better work.



### YOUR JOURNAL.

The Journal of the Medical Association of Georgia was established to meet the peculiar needs of the profession in our State. It is maintained not only for the publication of scientific papers and discussions but also for the advancement of all matters that have for their object the welfare of the medical profession in our State and Nation. It is *your journal*. Each and every member of the Association has an equal interest in it. It is now and will remain just what *you* make it. Looking back over the years that have intervened since its establishment and the rocky road over which it has had to travel it is with a feeling of deep responsibility that we undertake to represent you in it. Now let's one and all get behind it and make of it a Journal we shall feel proud to possess. The mental caliber of the men in the medical profession in Georgia is, we are wont to believe, the equal of any. Our Journal does not reflect this. However, if we support it as we should there is no reason why we cannot make it the equal of any State Journal in the country and the superior of many. What say you?

---

### TO OUR RETIRING SECRETARY-TREASURER.

The Medical Association of Georgia owes a debt of gratitude to its retiring Secretary-Treasurer which it will never repay. The debt was not made with the expectation of repayment. During the years of Dr. W. C. Lyle's tenure of office he has given without stint of his time, labor and funds for the welfare of the Association. His duties have been arduous and trying. Yet he has always had time for the younger and less influential as well as the older and better established members of the Association. He established the Journal. He has given more of his time to the Association during the past ten years than any other member. He had much to do with the splendid record made by the physicians of Georgia during the recent Great Conflict. It is only by such unselfish devotion of its members that the medical profession may hope to maintain its honorable traditions.

### ATTENTION COUNTY SECRETARIES.

The County Secretaries can render a real service to the profession in the State by sending to the Journal news items of interest to physicians. An accurate record should be published each month in the Journal of marriages of our members, births and deaths in their families. Under news items we shall be glad to publish the names and addresses of new members locating in the various counties and of the removal of members from one county to another. If a member limits his work to one field of medicine it will be mentioned at this time.

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### NOTES AND COMMENT.

Do you know of any member of the Association who has not received this issue of the Journal? If so, please notify the Secretary.

---

Is your name spelled correctly on the Journal's mailing list? Is your address correct?

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We have in the State of Georgia over three thousand physicians, less than fifteen hundred are members, in good standing, of the Medical Association of Georgia. Surely all the others are not ineligible for membership. Our Constitution describes the qualifications as "Every legally registered physician residing and practicing in——County who is of good moral and professional standing and who does not support or practice, or claim to practice, any exclusive system of medicine, shall be eligible for membership." The qualifications are broad enough, aren't they? Have you done your duty to yourself and to your Association by trying to get every eligible physician in your County to become a member of his County and State Associations?



**PENNINGS OF POLLY DIPSIA.***(Censored.)*

Were you at Macon?

Some meeting.

Who is the Secretary of your County Society?

Ask him if he has seen your Councillor this year.

If he hasn't, maybe the poor fellow is dead. Write him and see.

Let's start a birth and marriage column. Report the victims.

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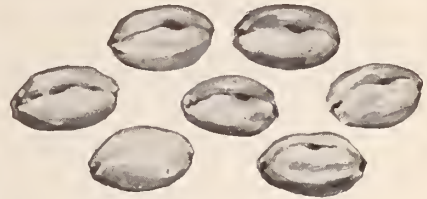
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# THE JOURNAL

OF THE

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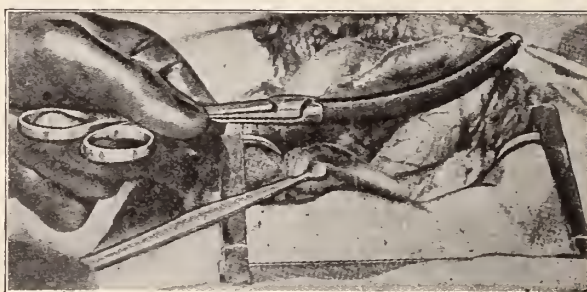
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VOLUME X

ATLANTA, GA., JULY, 1920

No. 2

### ORIGINAL ARTICLES

#### \*SNAPPING HIP, WITH REPORT OF CASES.

Marion C. Pruitt, M. D., F. R. C. S.

During my service as surgeon, 4th London General Hospital, 1917, I was asked by a fellow officer to make a round in his wards while he was away for over Sunday. While casually going around, my attention was attracted to a patient standing on crutches at the foot of bed and I noticed that the toe was worn off of his army shoe. I asked him about his trouble and he informed me that he had subluxation of the hip. When asked how he knew, he proceeded to give me a demonstration. With this and a superficial examination, I was certain of his trouble. When my fellow officer returned, I informed him that he had a very interesting case in his ward and asked that the patient be transferred to my service, to which he readily consented. This was the first case I had ever seen and until this time snapping hip had been only a medical term to me.

The following is the report of cases:

Case 1: T. S. Pte. British Regular Army for the last nine years, on Dec. 15th, 1915, was transferred to Salonika and saw active service until August, 1916, when he contracted malaria. He was admitted to the hospital and transferred to Malta. While in the hospital at Malta for malaria, he complained of trouble with his left hip. (I quote from the notes of the "Medical Case Sheet"): "Dec. 26, 1916. He seems to have suffered for a long time with some serious condition of the left hip; the part appears to be absolutely movable—a partial subluxation. He has been examined in consultation with Capt. B., who does not recommend any form of treatment. E. P."

He was transferred from Malta to London, England. Diagnosis: Malaria and subluxation of left hip.

While under treatment in London for malaria, he was seen by Maj. W., and a mechanical apparatus ordered for the hip condition and drop foot.

May 15, 1917, as per arrangement with the medical officer, he was transferred to my service at 4th London General Hospital, London, for treatment of hip joint condition.

Physical examination May 16, 1917. A well developed muscular young man, age 28, on crutches, complaining of drop foot, dragging of the left leg and a snapping noise of the left hip, produced at will by slight flexion of the left thigh and rotation outwards.

He has worn the toe off a big army boot dragging his foot on crutches.

The examination showed that the snap occurred when the left thigh was adducted, flexed to an angle of about 20 degrees and rotated outwards. The sound was so distinct that it could be heard from about four to six feet. One could feel and see a distinct jump or jerk over the great trochanter at each time the sound occurred. It gave the effect of a reduction of a distinct dislocation. The patient stated it caused slight pain to elicit this snap and that he could not walk on this leg without great discomfort. In fact, he had not walked, other than on crutches, for months. All movements of hip joint free and normal. Slight wasting of the muscles of the left lower extremity. Reflexes normal. X-ray examination negative. However, he had an X-ray report of previous examinations marked (?) subluxation.

A close examination of the hip revealed that as the patient produced this snap, there was a sudden passage of a strong band forward, and of the great trochanter backward. Immediately preceding this snap, the band

\*Read at meeting Medical Association of Ga., May, 1920.

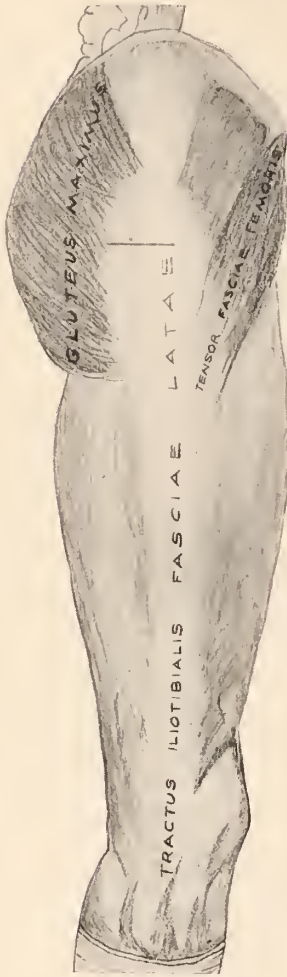


Fig. 1. This drawing shows a normal anatomy, skin and superficial fascia removed, exposing deep fascia of the outer side of thigh with thickened portion of fascia lata, known as the tractus ilio tibialis, insertion of tensor vaginae femoris muscles and superficial insertion of the gluteus maximus into the tractus ilio tibialis fascia lata. Right Thigh.

The small line over the trochanter shows the point of cutting the fascia lata.

could be felt posterior to the great trochanter on which it seemed to catch.

A diagnosis of snapping hip was made and operation advised under local anaesthetic.

Operation: Under local anaesthesia an incision (Fig. 1) was made about four inches long over the great trochanter in line with the long axis of the thigh and the fascia lata in this region exposed. The patient was then asked to elicit the snap and the sudden passage forward of a thickened band of the fascia lata was seen and felt. The patient was then asked to make such movements that would make this part of the fascia lata taut, and

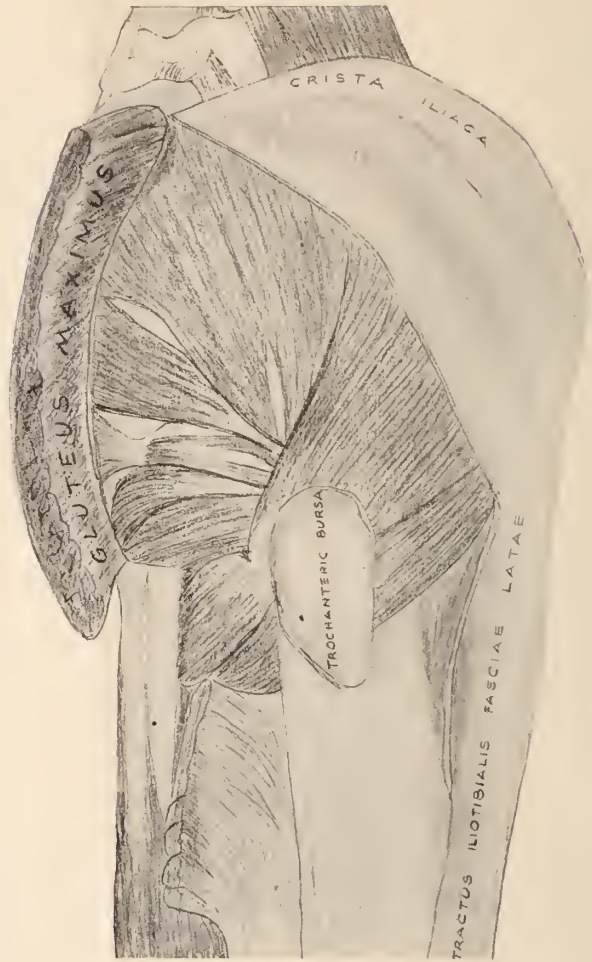


Fig. 2. Second layer of muscles of the external side of hip exposed by division of the gluteus maximus and a portion of the fascia lata. Note the trochanteric bursa, over which the fascia lata and insertion of the gluteus maximus muscles normally glides.

the fascia lata was cut at right angle over the great trochanter. The parts were seen and felt to give way. He was then asked to produce the snap which he was unable to do. The skin was closed and the patient returned to bed for three days. On the fourth day he was up and took his crutches and mechanical apparatus and returned them to the splint room. I was unable to follow the case for longer than two months; but up to this he had been quite normal.

Case 2: Jan. 28, 1918, Mr. B., age 30, pale anaemic, loss of weight, poorly developed muscular, advanced pulmonary tuberculosis and hemorrhoids.

Present complaint: A snapping noise elicited on certain movements of the hips. He



Fig. 3. Illustrates the posture assumed by the patient when voluntarily causing the snap.

states that for the last six to ten years that he noticed when the lower extremities were slightly adducted, flexed and rotated outward, a sudden snapping sound occurred in the region of the great trochanter. This could be produced on either side. The sound could be heard two to three feet. A distinct jump or jerk could be felt over the great trochanter at each time the sound occurred. The snap gave no trouble in walking and very rarely occurred, other than when produced at will. He was self-conscious of the condition and was seeking advice for fear of graver conditions. X-ray negative. When told the cause of the snap, he decided the discomfort was not enough to justify treatment.

#### Anatomy.

All cases are due to some abnormality of the fascia lata or the great trochanter, which causes the fascia lata to catch on the back of

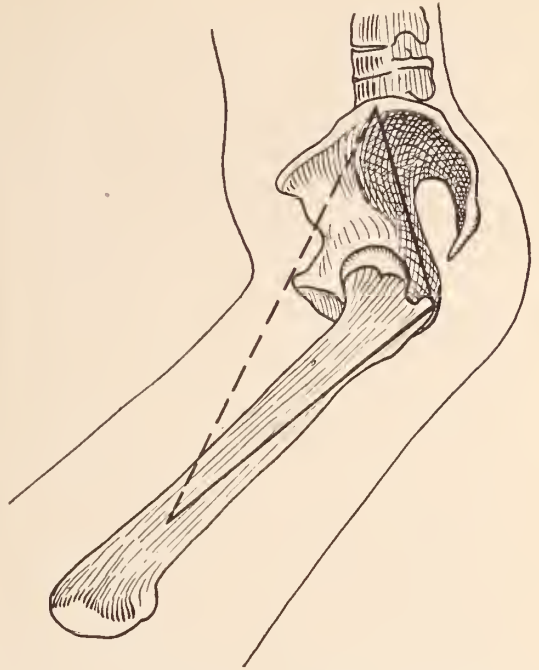


Fig. 4. Illustrates the catching of the fascia lata behind the great trochanter and in flexion of the thigh, it becomes so taut as to snap forward into the position indicated by the dotted line.

the great trochanter and suddenly jump forward when made taut by adduction, flexion and external rotation of the affected thigh. Cases have been described in which the snap was supposedly due to some irregularity of the acetabulum, which permitted subluxation. From a review of literature on this subject, I do not consider the evidence convincing.

Case 1 is an example in point. This case was diagnosed subluxation of the hip, and passed from hospital to hospital and was seen by different consultants from Dec. 16, 1916, until transferred to my service May 15, 1917. Subluxation and snapping hip are two distinct anatomical and pathological conditions and should not be confused with each other. Normally there is a thickening of the fascia lata running longitudinally from the crest of the ilium downward just in the line of the posterior margin of the great trochanter. Zur Verth was the first to call attention to this thickening and applied the term "tractus cristo femoralis." This thickening can be demonstrated by making a longitudinal slit in the fascia at the level of the great trochanter and passing the finger backwards underneath



the fascia. This band can be made tense and to press firmly against the trochanter by adduction of the thigh or relax by abduction.

### The Mode of Production of the Snap.

The snap is produced as follows: Rest the body weight on the pathological hip, the pelvis sinks to the opposite side, Fig. 3. This places the pathological thigh in an adducted position, causing the tractus cristo femoralis to press firmly against the bone and to catch just back of the great trochanter. Now flex the thigh; this causes the great trochanter to pass backwards (Fig. 4) carrying with it the thickened fascia band, which is made more taut, exactly the same as a bowstring is tightened by pulling the archer's hand. This relaxes the gluteus maximus muscle. When a certain degree of flexion and external rotation of the thigh is reached, the tightened fascial band is dislodged from behind the great trochanter and suddenly slips forward. This produces the snap (Fig. 4).

### Etiology.

1. Any condition which causes abnormal thickening of the tractus cristo femoralis.
2. Unusual prominence of the great trochanter.
3. Abnormal relaxation of the gluteus maximus muscle. Contributing cause: practice or habit of the necessary movements to produce the snap and neurasthenia.

### Treatment

#### Non-operative.

Cases seeking advice for fear of graver conditions, when told the cause of the snap, will usually decide that the discomfort is not enough to justify treatment.

Strapping with adhesive, firm flannel spica or a mechanical contrivance to make pressure over the great trochanter, have been recommended and used in certain cases.

#### Operative Treatment.

I consider cases which have enough discomfort or self-consciousness to require any form of treatment, should be subjected to operative treatment. The operation gives immediate and permanent relief. The operation should be done under a local anaesthesia. After the fascia lata is exposed the patient is made to elicit the snap and the tractus cristo femoralis divided at right angles over the

great trochanter (Fig. 1) then the condition is immediately relieved. The wound is closed and the patient is allowed to be up in two or three days.

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### TABES: NEWER METHODS OF TREATMENT.

Hansell Crenshaw, Ph.G., M.D.

Associate Professor of Clinical Neurology and Psychiatry in the Medical Department of Emory University, Atlanta, Ga.

Since the advent of arsphenamine and lumbar puncture, real progress has been made in the treatment of locomotor ataxia. While cures cannot be claimed, the disease appears to be arrested by treatment in many cases and in others considerable improvement has been attained.

One successful plan of treatment carried out by the writer in two cases was as follows: Arsphenamine was administered in six-tenth gram doses intravenously, at intervals of ten days until four treatments were given. Immediately following each intravenous injection mercurialized serum (one-fiftieth grain of mercuric chloride in 30 c. c. of sterile serum) was injected into-spinal by the gravity method. Enough spinal fluid was withdrawn each time to make room for the mercurialized serum which replaced it. In the first case so treated the Wassermann of the spinal fluid changed from positive to negative after the fourth combined treatment and the cells dropped from 60 to 15 per em. Likewise the globulin decreased. Clinically the patient was relieved of his lightning pains, his knees became steadier and he walked with less ataxia. The second case showed a corresponding change in the Wassermann, the cells dropped from 80 to 20 and the patient was relieved of his intense pains. His ataxia, however, remains after twelve months unimproved. In both of these cases a severe reaction chiefly consisting of pains in the legs followed each intra-spinal injection of mercurialized serum; and it was necessary to administer morphine over a period of twenty-four hours. Because of these severe reactions I have sought other methods of treatment.

C. E. Dowman of Atlanta, has reported a method combining arsphenamine intraven-

ously and mercurialized serum intra-spinously, as follows: the mercurialized serum is injected by lumbar puncture first and the arsphenamine is put in the vein six hours later. The advantage of this method is that the meninges and choroid plexus are stimulated to increased production of cerebro-spinal fluid by the mercurialized serum so that when the arsphenamine is injected into the vein, some of it is carried over into the cerebro-spinal fluid. Dr. Dowman reports quite satisfactory results from this method.

The Swift-Ellis method of injecting arsphenamine intravenously; withdrawing an ounce of blood thirty or forty minutes later; separating the serum from the corpuscles of the blood, inactivating the serum by heating it; and injecting the "salvarsanized serum" thus prepared into the spinal canal—has been abandoned by the present writer. The amount of arsphenamine in the serum prepared in this way is too infinitesimal to warrant serious consideration. The value of this method simply consists in the fact that arsphenamine is given intravenously and that the choroid plexus and meninges are stimulated by the intra-spinous injection.

The Ogilvie method of direct intra-spinous injection of neo-arsphenamine, I have never tried.

The plan of treatment which the writer has found most satisfactory, all things considered, is that proposed by Barbat and subsequently modified by F. X. Dercum and others. This plan is as follows: a moderate dose of arsphenamine is introduced into the vein in the usual way. Immediately afterwards 20 or 30 c. c. of spinal fluid is withdrawn. This cerebro-spinal fluid is reformed from the blood in the course of a few hours. Consequently some of the arsphenamine is brought over from the blood into the spinal fluid. The treatment is repeated at intervals of a week until the Wassermann of the spinal fluid is negative and the cell count approaches normal. In one of the writer's cases the cell count fell from 130 to 24 as a result of the first treatment; and to 11 cells after the second treatment. Usually a series of four treatments is sufficient to bring the serological status of the cerebro-spinal fluid to approximately normal. The series of

treatments should be repeated at the end of a year.

The advantages of this method over others are (1) its simplicity, (2) the absence of painful reaction following the treatment, and (3) the excellent results obtained.

In addition to the combined intravenous and intra-spinous treatment it is advisable to administer mercury by inunction and potassium iodide by mouth. The ten per cent. oleate of mercury may be conveniently rubbed on the sole of each foot in the mornings and washed off at night over a period of several weeks.

Some efforts to re-educate tabetics to walk should be made. The Frankel method of having patient practice putting his feet in tracks marked out on the floor is not so good as the Maloney method of having the patient practice walking a straight line at first without looking at the ground and later with the eyes closed.

References: Barbat, J. A. M. A., Vol. 70, No. 3, January, 1918, pp. 147.

Dowman, C. E., Journal Med. Association of Ga., Vol. XI, No. 7.

White and Jelliffe, Nervous and Mental Diseases, 2d Ed.

414 Hurt Bldg.

### **\*A PLEA FOR MORE CAREFUL STUDY OF OUR CASES.**

**By R. C. Woodard, M. D., Adel, Ga.**

Mr. President and Gentlemen:

In addressing this gathering I realize my audience is a body of scientific men, men who represent the very best in our profession in this district, and it is not so much to you gentlemen to whom I desire to appeal, as it is to the men in our profession who are always too busy to attend a medical meeting. The plea that I desire to bring to you is that we may all make a more careful study of our cases. Of course, it is true, that as young men leaving college, especially of to-day, we have been thoroughly drilled in the most careful diagnostic methods, still, how often, do we find men, and often the young men, "departing from the faith," and being willing to base their diagnosis, treatment and lives of their patients, on mere guess work. I fancy that I can see in the not distant future, well

\*Read before the Eleventh District Medical Society, Douglas, Ga.



organized Clinics or diagnostic plants in almost every town, village, or rural section, where men are making real diagnoses, where each case is studied and worked out according to the needs of each individual patient along modern diagnostic lines.

How often do we see the every-day doctor going into home after home and never getting a blood analysis? How often do we find a physician who is not prepared to make a urinalysis? How often do we find a patient with fever, that may be due to malaria, typhoid or acute abdomen and never a blood analysis or even a blood count? How often do we see physicians who have been engaged to take charge of pregnancies, and never a urinalysis? How often do you see a physician walk into a sick room, glance at the patient, count the pulse, ask to see the tongue, take the temperature and then name the trouble to the family, prescribe and go home?

Now, gentlemen, this is not right. Go to the Medical Centres, if you will, and see them take their patients one by one, go into each case in detail, make every chemical, microscopical and X-ray investigation that is indicated before they even attempt to name the disease. Now, if this procedure is necessary of the men of the Hopkins or Mayo type, then how can *we* hope to make an accurate diagnosis by a shorter route. Well, you who do not agree with me, will say that we do not pay for the trouble. To the former, I will reply by saying that we *do* have the time and it is evidenced by the fact that we already have too many doctors. Let us give our patients more time, do more detail work, and thus make more room for our rapidly growing profession. To the latter I will reply that I find people always ready to pay for results.

The great trouble with us all, we are too careless with our work to expect too much from our efforts. Every physician should have him a well-equipped laboratory, and practically all of his cases should have the advantage of its investigation. If you are not capable of doing your own laboratory work, just a few, say ten men, or more, in each city or county can unite and secure the services of a lady technician at an approximate cost of \$10.00 per month, each. This can easily be collected from the patients

whom she serves. Often you will have cases that require and even demand, the use of the X-ray. These machines are getting more plentiful and if our work does not warrant our investing in the X-ray apparatus, by all means we should seek the nearest one when we have any idea that this mode of investigation will give us any aid. I could say much more along this line, but allow me to add one case report, which will show very conclusively what I mean.

Was called one night by a physician who was leaving his territory, and asked to see patient for him following morning, who had been sick one week. He asked me to treat this patient for him during his absence, stating that patient was suffering from typhoid fever with considerable tympanites. On seeing patient following morning, found her delirious with a very pronounced distended abdomen. I gave patient one fourth gr. Morphine and advised a nurse. I called again at eleven o'clock, patient being more quiet was enabled to make a more thorough examination. Temperature 102, and abdomen distended to such an extent, that I asked if patient were not pregnant, being given a negative answer, inquired as to kidneys; was informed that patient's kidneys were acting very freely and involuntarily. I suggested to nurse that patient be catheterized; this being done with a result that 64 ozs. of urine was secured, the distention immediately being removed. Thinking perhaps a mistaken diagnosis had been made, I secured specimen of blood, which was examined for malaria and Widal made was negative, malaria positive, aestivo autumnal type.

Feeling perhaps that my laboratory technician had made a mistake, and feeling still that she might have typhoid fever, I secured a second specimen and sent to the laboratory under a different name with identically the same result as in the former report. I immediately put patient on hypodermics of quinine grs. 15 every 6 hours, with absolute control of temperature within 24 hours, continuing to catheterize patient for several days with a prompt recovery with the exception of a slight cystitis due to repeated catheterization. After this, patient was removed to her home some distance from my town, where I



learned that she later died, some three months afterwards, never having regained sufficient bladder control to void her urine. I mention this case as one of several that I recall from my several years of experience where the result might have been different, if a more thorough examination had been made.

Hence my plea for a more thorough examination, going into every detail, if need be, to locate the cause of the trouble, and thus proceed with the proper line of treatment. Much might be said along this line; volumes could be, and have been written, to cause us to make our examinations more thorough, to study our cases more intelligently and then the half would not have been told. Just because we are country doctors is no excuse for not doing thorough work, and it is to the young men of to-day that we must look for our best work. My association with two very capable young men for the past ten years has taught me a most valuable lesson, as they are the men of the hour. It should not be thus. Men of years of experience, who have been students, are the men who should lead in medical thought, and the only reason why this is not true is due to the fact, that we, the older men in the profession, have not carried out this one idea of a more thorough study of our cases, hence my plea.

Permit me to insist that we all make a more scientific study of our work. Make it a daily custom before retiring at night to mail a specimen from each patient, when we feel it is needed, to some laboratory. If we haven't one of our own, the State Board of Health is at our command. A specimen mailed in the evening will give a laboratory finding the following morning by wire, and thus it will be seen that much benefit will be derived from a constant contact with this body of men whose skill is furnished us free. In the

matter of consultation, to which we are all more or less subject, make it a point to have your consultant "hedged in," so to speak, that is, have all of the little points of laboratory diagnoses at hand. If he should ask for urinalysis, be able to hand him your card. If he inquire as to the blood findings, be ready with the goods; if he wants to know of the blood pressure, give him the readings; if it be some simple throat affection, and he advises antitoxine, show him that you have given the maximum. All these points, as trivial as they may seem, go a long way toward satisfying the family that you are covering the ground.

Some of the hardest licks the family doctor gets comes from the consultant when least expected or intended, simply from a slight overlooking or neglecting of details by the attending physician. The consultant in an effort to do *something* that the family may feel that he has earned his fee, will ask some trivial question relative to the patient, examination or treatment, which may mean but little to patient or diagnosis, still to the family may mean much in the way of future confidence in both attendant and consultant. Hence, if for no other reason, it is well worth while to pay attention to all minor details. This plea is an important one, one about which we could write much, still the great aim of physicians is to get results, and to obtain the best results, we **must** know our cases, and this knowledge does not come intuitively, but only through a most careful and painstaking study of each individual case. I feel that only through this careful painstaking route, will the best results be obtained.

In conclusion, I desire to thank you gentlemen for the courtesy accorded me, and if I have advanced one thought that will stimulate any *one* of you to a more careful study of any *one* case, my remuneration is sufficient.

# THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia

ALLEN H. BUNCE, M. D., Editor

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Editorial Department

## THE GEORGIA STATE TUBERCULOSIS SANATORIUM.

We are in receipt of the ninth annual report of the Georgia State Tuberculosis Sanatorium. It will be recalled that the State Board of Health took charge of the Sanatorium in September, 1918. Dr. Edson W. Glidden, the present superintendent, came to the institution in February, 1919 and has steadily increased the efficiency of the Sanatorium until at present it is taking care of the maximum number of patients on the appropriation allotted to him. This institution is really doing a remarkable work for the people of the State and we regret that it has not received more generous support both from the physicians and from the legislature.

No one fact shows the efficiency of Dr. Glidden's management more than the fact that, with the present high cost of living, he has been able to maintain the Sanatorium on the small total cost of \$1.894 per capita per diem for patients treated during the past year. That the patients received sufficient food of good quality is shown by the fact that of 52 patients who stayed over 90 days there was an average gain in weight of 12½ lbs., although of these 23 were far advanced, 22 moderately advanced and only 7 incipient cases. The number of patients whose disease became arrested, quiescent and improved is gratifying. We of Georgia should recognize that we have an institution here which is capable of rendering just as good service as any in the whole country. All it needs is the united support of the people. It has been shown long ago that for all practical purposes as good results may be obtained in the treatment of tuberculosis in this part of the country as in any

other section. The principal factors are a carefully regulated routine of rest, diet and sleeping in the open air. All other methods of treatment are of secondary importance. These may be obtained as well at our State Sanatorium as at the most expensive place in the country and the results will be equally as good.

Some of the things Dr. Glidden needs to help carry on the work successfully are equipment for two cottages which cannot be used for lack of equipment, a nurses' home, a cottage for the help, a dining room and dairy barn. Furthermore, if we are to cope successfully with the tuberculosis problem in Georgia, some provisions must be made for the care and treatment of negroes suffering from the disease. They cannot be cared for under the existing circumstances. Dr. Glidden suggests that they may be cared for in a group of buildings in connection with the present Sanatorium, or better still, the present institution may be used entirely for them and a new sanatorium built nearby for the white patients. He concludes with the statement that, "In order to increase our daily patient census to 100 an increase of maintenance appropriation is necessary. For this purpose \$75,000 would be required." Let us hope that our solons may find the means whereby this may be obtained for this worthy cause.

## THE TIFT COUNTY MEDICAL SOCIETY.

Elsewhere is published the report of Dr. C. K. Sharp of Arlington, Counsellor from the Second Congressional District. He calls particular attention to Tift County as having a 100 per cent Society. There are sixteen physicians in Tift who are eligible to membership in the County Society and State Association—every one is a member in good standing. Furthermore, he reports that it has the very best professional and co-operative spirit among its members. We have often heard of Tift as one of the most progressive counties in Georgia and this confirms the view that the members of the Medical Profession are determined that none shall outrank them in the interest they manifest in their Society and Profession. Who will be the next to report a 100 per cent. County Society?

**ATTENTION COUNCILLORS.**

Our By-Laws state (Chapter V, Sec. 2), that, "Each Councillor shall be organizer and peacemaker for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates." Sec. 10. "Each Councillor shall render at every session a **written** report of each county in his district."

According to the minutes of the Macon meeting, reports were made by the following Councillors: First District, Dr. A. J. Mooney, Statesboro; Second District, Dr. C. K. Sharp, Arlington; Third District, Dr. V. O. Harvard, Arabi; Fourth District, Dr. H. W. Terrell, LaGrange; Sixth District, Dr. J. O. Elrod, Forsyth; Seventh District, Dr. Geo. B. Smith, Rome; Eight District, Dr. W. E. McCurry, Hartwell; Ninth District, Dr. L. C. Allen, Hoschton; Tenth District, Dr. H. D. Allen, Milledgeville. However, according to the records in the office of the Secretary, only one Councillor submitted a **written** report as required by Chap. V., Sec. 10 of the By-Laws of the Association. This report was submitted by Dr. C. K. Sharp, of Arlington, for the Second District. We should have these reports so that they may be published in the Journal and become a part of the permanent records of the Association.

**COMMITTEES.**

The President of the Association, Dr. E. T. Coleman of Graymont has appointed the following committees for the year 1920-21:

**The Committee on Medical Defense.**

Dr. M. A. Clark, Macon, Chairman.  
 Dr. E. C. Davis, Atlanta.  
 Dr. Eugene E. Murphy, Augusta.  
 Dr. V. O. Harvard, Arabi, Chairman of the Council.  
 Dr. Allen H. Bunce, Atlanta, Secretary of the Association.

**Committee on Public Policy and Legislation.**

Dr. L. C. Allen, Hoschton, Chairman.  
 Dr. W. H. Hendricks, Tifton.  
 Dr. J. O. Elrod, Forsyth.  
 Dr. E. T. Coleman, Gramont, President of the Association.  
 Dr. Allen H. Bunce, Atlanta, Secretary of the Association.

**Committee on Scientific Work.**

Dr. W. C. Lyle, Atlanta, Chairman.  
 Dr. J. O. Elrod, Forsyth.  
 Dr. Allen H. Bunce, Atlanta, Secretary of the Association.

**Committee on Hospitals.**

Dr. W. P. Harbin, Rome, Chairman.  
 Dr. W. H. Doughty, Augusta.  
 Dr. W. S. Elkin, Atlanta.

**Committee on Necrology.**

Dr. T. J. McArthur, Cordele, Chairman.  
 Dr. J. W. Palmer, Ailey.  
 Dr. H. W. Terrell, LaGrange.

**Committee on Health and Public Instruction.**

Dr. J. D. Rudolph, Gainesville, Chairman.  
 Dr. J. D. Herrman, Eastman.  
 Dr. J. L. Weddington, Dublin.

**Committee on Crawford W. Long Statue.**

Dr. Garnett Quillian, Atlanta, Chairman.  
 Dr. Geo. L. Smith, Swainsboro.  
 Dr. C. R. Riner, Savannah.  
 Dr. W. E. McCurry, Hartwell.  
 Dr. J. M. Smith, Valdosta.  
 Dr. F. W. McRae, Atlanta.  
 Dr. E. C. Thrash, Atlanta.  
 Dr. R. H. Stovall, Macon.  
 Dr. H. M. Fullilove, Athens.  
 Dr. L. G. Hardman, Commerce.

**The Cancer Commission.**

Dr. J. L. Campbell, Atlanta, Chairman.  
 Dr. Geo. R. White, Savannah.  
 Dr. W. E. Saunders, Arlington.  
 Dr. T. J. McArthur, Cordele.  
 Dr. W. F. McCurdy, Richland.  
 Dr. C. H. Richardson, Macon.  
 Dr. R. M. Harbin, Rome.  
 Dr. H. M. Fullilove, Athens.  
 Dr. L. G. Hardman, Commerce.



Dr. A. G. Little, Valdosta.

Dr. T. C. Thompson, Vidalia.

**Duties of Committees—Attention Chairmen.**

*The Committee on Medical Defense.*—This committee is charged with executive powers in carrying out the Medical Defense Act of the Association. The Medical Association of Georgia defends all its members against all unjust claims for mal-practice carrying the case, if necessary, to the highest courts. It does not pay any damages. A member must be in good standing at the time the alleged mal-practice is committed in order for the Association to defend the case. This committee has done much valuable work for the members in the past and the indications are that they will be called upon more frequently in the future. They have selected an attorney—Dr. Clark prefers the name “advocate”—for the Association, who will handle all cases in co-operation with the members of the committee. At the Macon meeting the association voted two thousand dollars, or as much thereof as may be necessary, for the use of this committee for the ensuing year.

*The Committee on Public Policy and Legislation.*—Its duties as outlined by the Constitution are as follows: “Under the direction of the House of Delegates it shall represent the Association in securing and enforcing legislation in the interest of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, State and national affairs and elections.”

*The Committee on Scientific Work.*—This Committee “shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days before each annual meeting it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.”

*The Committee on Hospitals.*—This Committee shall co-operate with the “Council on Medical Education and Hospitals” of the American Medical Association. “Every State Medical association in the United States has its part in the present universal movement for the betterment of hospital service. Every association now has its own committee which is studying the hospital situation in its State in co-operation with the Council on Medical Education of the American Medical Association. The Council has obtained, through reports, correspondence, and other methods, data relative to all hospitals in the country and each State committee has been supplied with the data relating to the institutions in its state. Through their closer familiarity with the hospitals, or by inspections the state committee is in excellent position to verify these data and to make a reliable report to their state association and to the Council.

“For convenience and in order to secure uniformity of reports from the forty-eight committees regarding the relative efficiency of hospitals, blanks furnished by the Council call for a rating of all hospitals in classes A, B and C, grouped also according to the special class of patients cared for. This rating is not for publication but will aid the Council in the preparation of a list of hospitals which are considered worthy of approval. These lists are subject to frequent revision so that names of other hospitals can be included as soon as sufficient improvements are made to warrant their being approved. State committees are urged to promptly report to the Council any instances where such improvements have been made.

“The purpose of the work is to aid the hospitals in providing for their patients the best possible service and in no way to injure those which are honestly endeavoring to provide such service. Toward this end, every possible assistance will be given the individual hospitals by the Council or by the local state committee in establishing such changes as will make them worthy of approval.

“Forty-two state committees have reported progress in connection with the latest survey and thirty-four have turned in reports

regarding hospitals inspected and graded, which have more than half the entire bed capacity of all general hospitals in the country. Meanwhile, this work of the Council is not conflicting with, or duplicating the splendid work being done by the American College of Surgeons, the Catholic Hospital Association, the American Hospital Association or other agencies. In fact the work of each agency is evidently complementing that of the others.

"At the New Orleans meeting recently, the House of Delegates of the American Medical Association registered an intense interest in the improvement of hospital service and authorized the trustees to generously provide for that work. This work has been so intimately related to that of the Council on Medical Education that the name of this Council was changed to the "Council on Medical Education and Hospitals."

"In brief, further enlargement of hospital work by the American Medical Association is assured and in this work each state is destined to have an important part. Toward this end each association is urged to make its hospital committee permanent and to retain on it those who will not only be active but who also can do the work in the most efficient and unbiased manner. Hospitals, at present, form the closest link between the medical profession and the public and the medical profession should do all it can to aid the hospitals to provide the very best service possible." N. P. Colwell, M.D., Secretary, Council on Medical Education and Hospitals, A.M.A., Chicago.

*The Committee on Necrology.*—It is the duty of this committee to keep an accurate record of the deaths occurring in the profession and to report these together with suitable resolutions at each annual session of the Association. It will aid this committee very much in its work if the secretary of each county society will report all deaths from his county to the Journal of the Association as soon as they occur, together with any resolutions which may be passed by the local society.

*The Committee on Health and Public Instruction.*—"At the New Orleans meeting of

the American Medical Association, the House of Delegates adopted a recommendation of the Reference Committee that the work of the Subcommittee on Health Problems in Education be endorsed and that the Secretary of the Council on Health and Public Instruction be instructed to ask the secretary of each state association to have a committee appointed to attend the next meeting of the State Teachers' Association and to ask for the appointment of a committee from the State Teachers' Association to co-operate with the medical profession in promoting better health conditions in our public schools." Frederick R. Green, M.D., Secretary, Council on Health and Public Instruction, Chicago.

*The Committee on Crawford W. Long Statue.*—At its recent annual meeting the Medical Association of Georgia unanimously adopted the following resolution, introduced by Dr. Garnett Quillian:

"WHEREAS, in the Hall of Fame in the Capitol at Washington, Georgia has no statue to commemorate the memory of any of her distinguished sons, and

"WHEREAS, one of the sons of Georgia in the Medical Profession has distinguished himself as a benefactor to the human race, by making it possible for the development of modern surgery and obstetrics, in the discovery of ether anesthesia; therefore, be it

"RESOLVED, That the Medical Association of Georgia, in annual meeting assembled, petition the legislature of the State of Georgia to make at its next meeting an appropriation sufficient to place at least one statue from Georgia in the Hall of Fame at Washington, and that this statue be in commemoration of Crawford W. Long, whose distinguished service to humanity has won for him merited praise as one of the greatest benefactors of all time."

(Signed) G. W. Quillian, M. D.  
R. H. Stovall, M.D.  
E. C. Thrash, M.D.

It is the duty of this committee, with the aid of the entire profession of the State, to use every honorable means to secure the object of this resolution.



*The Cancer Commission* was created for the study and control of cancer in the State of Georgia. This commission has done much valuable work in the past and we predict that it will do much more good work for the education of the people on this important subject.

### REPORT OF THE COUNCILLOR, SECOND CONGRESSIONAL DISTRICT.

Dr. C. K. Sharp, Arlington, Ga.

The Second Congressional District occupies the Southwest corner of the State; that section known locally, and to a considerable extent abroad, as "God's Country"—the most favored agricultural section of Georgia. It is said that during the Civil War this part of Georgia was called "Egypt," as it contributed largely to the maintenance of the Confederate forces by means of its bountiful supply of corn. The bane of some localities in this favored section is malaria, but when this disease is under control and finally eliminated by steps now under way, we can invite the world outside to come in and share with us the bounties in store.

It is said that "that hot country" is paved with good intentions. I expected to make an official visit to each County Society in my District but was prevented from doing so by conditions beyond my control. However, I have kept in fairly close contact with the medical affairs by correspondence.

The Second District Medical Society was reorganized in November, 1919, after lying dormant for several years on account of the Great War. Routine business was transacted and the following officers were elected: Dr. W. L. Davis, Albany, President; Dr. W. H. Hendricks, Tifton, Vice-President; Dr. A. W. Wood, Albany, Secretary-Treasurer. Twenty-five members were present at this meeting. At the meeting in Albany in February of this year, the same officers were reelected. Ten additional members were enrolled at the Albany meeting. A splendid scientific program was rendered. The next meeting will be held in Thomasville in August.

In accordance with a resolution previously adopted by the Council a meeting of the presidents and secretaries of the county societies was called to meet in Albany at the meeting of the District Society, March 23, 1920. At this meeting five of the twelve counties were represented in addition to the Tri-County Society which I stood sponsor for. The conference, I feel, accomplished something as we discussed local conditions and means to improve the profession generally. At this meeting I furnished each representative present, and mailed to each absentee, the following questionnaire to be filled out and mailed to me after a thorough canvass of the county:

1. Number of members enrolled in County Society?
2. Number eligible, but not members?
3. Number ineligible and reasons for this disability?
4. Number regular physicians?
5. Number eclectic physicians?
6. Number osteopaths?
7. Number chiropractors?
8. Number negro physicians?
9. Number all others?
10. Date of meetings of Society? Average attendance?
11. Is a professional and co-operative spirit manifest among the members of your society?
12. Officers for 1920?

The replies showed the following: There are 190 physicians in the district eligible to membership in the Association. Only 136 of these are members, leaving 54 not enrolled. There are 198 regular physicians including 10 negro physicians, ten eclectic physicians, four osteopaths and seven chiropractors. The replies under "Date of Meeting" were as follows: "Second Wednesday each month;" "Twice monthly;" "Second Tuesday;" "At call;" one county left this blank so I assume they never meet; one meets quarterly; one has no regular date; one meets "Second Wednesday in every other month." Baker county has no organization as there are but three physicians in the county. One of these is a member of the



Tri-County Society and one a member of the Dougherty County Society. The attendance at the meetings of the county societies varied from none to 15. In reference to a "professional and co-operative spirit" I quote the following replies: "No, can't say as to cause;" "No, professional jealousy;" "Indifferent;" two "Fairly good;" three replies, "Yes;" one "Yes, the very best."

I want to commend to you the Tift County Society, the only 100 per cent. Society in the district. If there is a blue ribbon to be given Tift is entitled to it. I take pleasure in giving its report and only wish the rest were like it. Tift county has sixteen physicians, all members in good standing, with the very best professional and co-operative spirit among its members.

### CHIROPRACTORS CONVICTED.

A bitterly fought trial of Klopp & Klopp, chiropractors of Independence, ended in the conviction and fining of the defendants when the jury after a few moments' consultation found them guilty of practicing medicine without a license, on May 3. The charges were brought by Dr. F. L. Cook, health commissioner of Independence and chairman of the local board of health. The trial aroused a great deal of interest among the physicians in Jackson County, and was attended by numerous devotees of the chiropractic faith. As is customary in such prosecution, the chiropractors were represented by an attorney from Wisconsin, said to be employed for the purpose by an association of chiropractors, who presented the stereotyped appeal that the method employed by chiropractors was not a violation of the medical practice act because their ministrations consisted merely of adjustment of the vertebrae. The county prosecuting attorney replied to this specious argument with a clear-cut statement that it was the duty of the jury not to consider whether the state did right in refusing to license chiropractors, but simply to determine whether or not the defendants were complying with the state law requiring medical practitioners to have a license from

the state board of health. The case had been tried in March, but the jury failed to agree at that time. Klopp & Klopp filed a notice of appeal and continued their practices, but Dr. Cook promptly filed new charges against them. This determined attitude of Dr. Cook and the efficient handling of the case by the prosecuting attorney, discouraged the chiropractors so thoroughly that their attorney advised them to pay the fine and quit the business, which they agreed to do.

What "chiropractic" is has always been a mystery to the physicians, although there is no difficulty in understanding what "chiropractors" are. It is therefore quite appropriate here to give the definition of chiropractic as laid down by the legislature of New Jersey in the act to regulate the practice of chiropractic in that state recently passed and signed by the governor of New Jersey. We find the definition and comment on its clarity and logic in *The Journal of the American Medical Association*, May 15, as follows:

**Definition of Chiropractic:** The term chiropractic when used in this act shall be construed to mean and be the name given to the study and application of a universal philosophy of biology, theology, theosophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationships between all attributes necessary to normal composite forms, to harmonious quantities and qualities by placing in juxtaposition the abnormal concrete positions of definite mechanical portions with each other by hand, thus correcting all subluxations of the articulations of the spinal column, for the purpose of permitting the recreation of all normal cyclic currents through nerves that were formerly not permitted to be transmitted, through impingement, but have now assumed their normal size and capacity for conduction as they emanate through intervertebral foramina—the expression of which were formerly excessive or partially lacking—named disease.

Lucidity itself! The New Jersey legislature said, "Let there be light on Chiropractic"—and, behold, it became the "art of per-

mitting the restoration of the triune relationships between all attributes necessary to normal composite forms, to harmonious quantities and qualities . . ." Simplicity to the *nth* power. Bring on your Einstein theory—the New Jersey solons may oblige with a snappy definition.—Journal of the Missouri State Medical Association, XVII, No. 6.

### NEWS ITEMS.

#### Meeting of the Twelfth Congressional District Medical Society.

The Twelfth Congressional District Medical Society held its semi-annual meeting in Swainsboro on June 9th. The meeting was well attended and reflected the interest of the physicians of this district in their society. The papers, discussions and clinical cases were the equal of those presented at any of our state meetings. A feature deserving special mention is the fact that every essayist was present and presented his paper. If a society honors a member by placing him on its program it is certainly his duty to exert every effort to be present and read his paper. Another feature adding interest to the meeting was the exhibition of clinical cases. The cases exhibited and discussed by Dr. W. A. Mulherin of Augusta and Dr. R. C. Franklin of Swainsboro were both interesting and instructive. They served as a concrete example of the fact that the best diagnostic and surgical skill is not confined to the larger centers but may be found in every community where progressive medical men are located.

The barbecue tendered the society by the physicians of Swainsboro was complete in every respect and thoroughly enjoyed by everyone present.

The following program was rendered:

Invocation, Rev. J. M. Foster, Swainsboro.

A Few Facts and Fallacies in Maternal Feeding, W. A. Mulherin, M. D., Augusta.

Some Major Operations Under Procaine Anesthesia, R. C. Franklin, M. D., Swainsboro.

Diagnosis of Surgical Diseases of the Upper Right Quadrant, E. B. Claxton, M. D., Dublin.

Observations on Diabetes, Allen H. Bunce, M. D., Atlanta.

Acute Otitis Media, T. J. Blackshear, Jr., Dublin.

Eye Disturbances of Nasal Origin, J. H. Moore, M. D., Dublin.

Officers elected for the ensuing year are:

E. B. Claxton, M. D., Dublin, president.

T. E. Blackburn, M. D., Swainsboro, first vice-president.

T. C. Thompson, M. D., Vidalia, second vice-president.

J. H. Moore, M. D., Dublin, secretary-treasurer.

This society meets on the second Wednesday of the sixth and twelfth months. The next meeting place will be selected by the officers of the society.

#### Meeting of the Third District Medical Society.

The Third District Society held its twenty-sixth semi-annual session in Montezuma, Ga., on Wednesday, June the 16th. The meeting was held in the school auditorium and was called to order by the chairman of the committee on arrangements, Dr. C. H. Richardson. The president, Dr. Lucius Lamar, of Dawson presided.

A feature lending much interest to the meeting was the public lecture on "What the Medical Association of Georgia is Doing to Control Cancer," by Dr. J. L. Campbell of Atlanta, chairman of the Cancer Commission. These public meetings are doing much toward the education of the whole people on this very important subject, and our Cancer Commission deserves much credit for the efficient way in which they are fulfilling their mission.

The barbecue served the members and visitors by the Taylor-Macon Society was a very enjoyable occasion.

The following program was rendered:

Meeting called to order by the chairman of the committee on arrangements.

Address of welcome in behalf of the Taylor-Macon Medical Society—Dr. D. B. Frederick, Marshallville.

Response to address of welcome in behalf of the Third District Society—Dr. E. Collum, Dawson.

### Papers.

1. Colitis—Dr. C. H. Richardson, Montezuma. Discussed by Dr. J. E. Mangham, Reynolds; Dr. J. T. Stukes, Americus; Dr. J. T. Moore, Sycamore.

2. An Unusual Method of Enucleating an Eye—Dr. Ford Ware, Cordele.

Discussed by Dr. T. E. Bradley, Reynolds, and Dr. C. L. Pennington, Macon.

3. Discussion of the Use of the Broucho-scope and Esophagoscope—Dr. C. L. Pennington, Macon.

Discussed by Dr. T. E. Bradley, Reynolds, and Dr. C. C. Harrold, Macon.

4. Late Effects of Gas Inhalation on the Heart and Lungs—Dr. J. B. White, Atlanta.

Discussed by Dr. Allen H. Bunce, Atlanta; Dr. T. J. McArthur, Cordele; Dr. C. C. Harrold, Macon.

5. Treatment of Cancer with Radium—Dr. C. C. Harrold, Macon.

Discussed by Dr. J. L. Campbell, Atlanta; Dr. C. L. Pennington, Macon; Dr. R. P. Glenn, Americus; Dr. B. Daniel, Cordele.

### Public Meeting—Night Session.

6. What the Medical Association of Georgia is Doing to Control Cancer—Dr. J. L. Campbell, Atlanta.

The attendance at the meeting was good—more than forty members being present. The interest which the physicians of the Third District take in their society should serve as an example to other districts, for example, Dr. T. J. McArthur of Cordele remarked that he had never missed a meeting since the organization of the district. Every section was well represented. Their next meeting will be held in Fitzgerald on the third Wednesday in November. The officers are.

Dr. Lucius Lamar, Dawson, president:

Dr. E. B. Davis, Byromville, vice-president.

Dr. Chas. A. Greer, Oglethorpe, secretary-treasurer.

Dr. Geo. W. Parrott announces the opening of offices in the Grand Building, Atlanta. Dr. Parrott graduated from the University of Virginia in 1904 and took a post graduate work at Rush Medical College, Chicago, and St. Bartholomew's Clinic and New York Post Graduate Hospital, New York City. He will limit his practice to Proctology. The Journal of the Medical Association of Georgia welcomes Dr. Parrott and will be glad to receive the announcement of all other members of the profession locating in our state so that we may become better acquainted.

### American Medical Association.

Next meeting, Boston, Mass., 1921.

President, W. C. Braistead, Washington, D. C.

President-elect, Hubert Work, Pueblo, Colo.

Secretary, Alex. R. Craig, Chicago.

### Medical Association of Georgia.

Next meeting, Rome, May, 1921.

President E. T. Coleman, Graymont.

First vice-president, T. E. Oertel, Augusta.

Second vice-president, Fred L. Webb, Macon.

Secretary-treasurer, Allen H. Bunce, Atlanta.

Delegates to American Medical Association:

E. G. Jones, Atlanta.

W. C. Lyle, Atlanta.

Alternates:

J. G. Dean, Dawson.

M. A. Clark, Macon.

### Members of State Board of Health.

W. H. Doughty, Jr., M. D., Augusta, president.

James H. McDuffie, M. D., Columbus.

Chas. H. Richardson, M. D., Macon.

A. D. Little, M. D., Thomasville.

John W. Daniel, M. D., Savannah.

B. C. Teasley, M. D., Hartwell.

A. L. Crittenden, M. D., Shellman.

Robert F. Maddox, Atlanta.

A. C. Shamblin, M. D., Rome.

J. C. Verner, M. D., Commerce.

J. L. Walker, M. D., Waycross.



M. S. Brown, M. D., Fort Valley.  
 P. F. Bahnsen, Atlanta.  
 M. L. Brittain, Atlanta.  
 T. F. Abercrombie, M. D., Atlanta, secretary.

**State Board of Medical Examiners of Georgia.**

J. W. Palmer, Ailey, president.  
 A. F. White, Flovilla, vice-president.  
 C. T. Nolan, Marietta, secretary.  
 N. Peterson, Tifton.  
 H. W. Terrell, LaGrange.  
 C. M. Paine, Atlanta.  
 O. B. Walker, Bowman.  
 A. G. Little, Valdosta.  
 A. Fleming, Waycross.  
 H. F. McDuffie, Atlanta.

**ILLEGAL PRACTICE BY MEDICAL CULT PRACTITIONERS.**

Chiropractors and followers of other medical cults are doubtless practicing in many states in direct violation of the medical practice acts. Chiropractors, especially, are aided and abetted in doing so through an organization known as the Universal Chiropractors' Association of Davenport, Iowa, which has as its officers some who are also closely identified with a chiropractic school in that city. Such illegal practice could doubtless be checked, if not totally energetic action were taken against them as is now being conducted in Illinois by the Department of Registration and Education. As referred to in our news columns this week, temporary injunctions are being issued individually against all chiropractors in Illinois in an attempt to break the vicious circle established by the Universal Chiropractors' Association, which is encouraging a wholesale violation of law. If those who desire to practice the art of healing are not willing to comply with such reasonable educational standards as will render the public safe from ignorance and incompetence, then they should not be granted legal authority to practice; nor should they be permitted to practice on the public illegally through the machinery they themselves have established to evade the penalty for so doing.—**Jour. A. M. A.**, July 3, 1920.

**PENNINGS OF POLLY DIPSIA.**

(Censored)

Ever try thinking more and reading less?  
 —It works.

Remember that the period of fermentation is shorter in summer than in winter. Don't overtrain with the home brew!

A man in doubt in 1900 removed the ovaries; in 1915, the teeth; in 1920, the tonsils. There's a moral.

Dear Polly Dipsia:

What do you think of a young doctor marrying before he establishes himself in a good practice, and what kind of a girl would you advise him to marry?

(Signed) Medico.

Dear Medico:

I would certainly advise a doctor to marry before he is too old to start a family. In looking over the girls to make a choice it matters not about the color of the eyes or the hair, but be sure that they have "green backs."

Polly Dipsia.

Did you ever notice how many advanced cases of tuberculosis have an elongated scar at McBurney's point cut diagonally? There's a reason.

Members of the Medical Association of Georgia are not only insured against damage suits, but they have the best of the medical profession of Georgia behind them when they are in trouble, and with them when they are not.

Many processes are active in the production of physical frailties in man, but neurasthenia is a handle that fits them all.

Dear Polly Dipsia:

Will you please advise me how to treat my patients suffering from an imbalance of endocrine secretions?

(Signed) Doubtful.

Dear Doubtful:

Study the aspect of these cases in the broadest sense, and try to decide accurately as to whether your patient needs "glandin" or you need "cerebrin."

Polly Dipsia.

# Medical Association of Georgia, Membership List, Nineteen-Twenty

## ALTAMAHA SOCIETY.

### Officers.

President .....Lambert, E. A.  
Vice-President .....Kennedy, F. D.  
Secretary.....Overstreet, G. C.  
Delegate .....

### Members.

Branch, W. D., Baxley, Ga.  
Comas, P. H., Baxley, Ga.  
Hall, J. M., Hazelhurst, Ga.  
Kennedy, F. D., Surrency, Ga.  
Lambert, E. A., Denton, Ga.  
Mann, F. R., Hazelhurst, Ga.  
Martin, S. W., Graham, Ga.  
McCrackin, H. C., Baxley, Ga.  
Overstreet, G. C., Hazelhurst, Ga.  
Pirkle, W. C., Baxley, Ga.  
Weaver, J. L., Baxley, Ga.

## BALDWIN COUNTY.

### Officers.

President .....Little, Y. A.  
Vice-President ...Yarbrough, Y. H.  
Secretary .....Binion, Richard  
Delegate .....Hall, T. M.

### Members.

Allen, Sr., H. D., Milledgeville, Ga.  
Allen, Jr., H. D., Milledgeville, Ga.  
Allen, E. W., Milledgeville, Ga.  
Allen, W. H., Devereaux, Ga.  
Binion, Richard, Milledgeville, Ga.  
Clayton, M. D., Devereaux, Ga.  
Cline, B. McH., Devereaux, Ga.  
Garrard, J. I., Milledgeville, Ga.  
Hall, T. M., Milledgeville, Ga.  
Jones, L. M., Devereaux, Ga.  
Lawrence, G. A., Devereaux, Ga.  
Little, Y. A., Milledgeville, Ga.  
Longino, L. P., Milledgeville, Ga.  
Mobley, J. W., Devereaux, Ga.  
Perry, T. B., Devereaux, Ga.  
Pettitt, J. K., Devereaux, Ga.  
Scott, W. M., Devereaux, Ga.  
Swint, R. C., Devereaux, Ga.  
Thomas, N. R., Milledgeville, Ga.  
Walker, N. P., Devereaux, Ga.  
Yarbrough, Y. H., Devereaux, Ga.

## BANKS COUNTY.

Harden, O. N., Homer, Ga.  
Jolly, J. S., Homer, Ga.

## BARTOW COUNTY.

### Officers.

President .....Lowry, D. T.  
Secretary .....Howell, S. M.

### Members.

Adair, R. E., Cartersville, Ga.  
Banks, G. T., Rockmart, Ga.  
Bradford, H. B., Pine Log, Ga.  
Battle, G. W., Cassville, Ga.  
Bowdoin, J. P., Adairsville, Ga.  
Chamblee, C. M., Adairsville, Ga.  
Greene, A. B., Cartersville, Ga.  
Griffin, W. C., Cartersville, Ga.  
Mahugh, James, Whites, Ga., R. F. D.  
Ragsdale, J. W., Taylorsville, Ga.

Wilson, R. E., Cartersville, Ga.  
Wofford, W. E., Cartersville, Ga.

## BEN HILL COUNTY.

### Officers.

President .....Russell, E. A.  
Vice-President .....Dorminy, E. J.  
Secretary .....Luke, J. M. J.  
Delegate .....Ware, R. M.

### Members.

Cohn, M. S., Fitzgerald, Ga.  
Dorminy, E. J., Fitzgerald, Ga.  
Dorminy, W. D., Fitzgerald, Ga.  
Frazer, J. L., Fitzgerald, Ga.  
Luke, J. M. J., Fitzgerald, Ga.  
Russell, E. A., Fitzgerald, Ga.  
Thornton, L. E., Fitzgerald, Ga.  
Ware, D. B., Fitzgerald, Ga.  
Ware, R. M., Fitzgerald, Ga.  
Ward, Frank, Fitzgerald, Ga.  
White, T. E., Fitzgerald, Ga.

## BERRIEN-COOK COUNTY.

### Officers.

President .....Clements, H. W.  
Vice-President .....Webb, M. L.  
Secretary .....Hutchinson, L. R.  
Delegate .....Shepard, W. M.

### Members.

Askew, P. H., Nashville, Ga.  
Brinson, H., Cecil, Ga.  
Burch, R. N., Milltown, Ga.  
Carter, L. A., Nashville, Ga.  
Carter, D. E., Nashville, Ga.  
Clements, H. W., Ray City, Ga.  
Etheridge, S. G., Sparks, Ga.  
Hall, E. J., Adel, Ga.  
Hutchinson, L. R., Adel, Ga.  
Lasseter, J. R., Nashville, Ga.  
Moore, W. A., Alapaha, Ga.  
McDermid, H. C., Sparks, Ga.  
Rentz, L. S., Ray City, Ga.  
Scruggs, C. T., Lenox, Ga.  
Selman, G. S., Nashville, Ga.  
Shepard, W. M., Adel, Ga.  
Smith, Louis, Milltown, Ga.  
Talley, J. V., Nashville, Ga.  
Webb, M. L., Adel, Ga.  
Weekly, J. S., Lenox, Ga.  
Woodard, R. C., Adel, Ga.

## BIBB COUNTY.

### Officers.

President .....Stovall, R. H.  
Vice-President .....Cleghorn, C. D.  
Secretary .....McGee, J. P.  
Delegate .....

### Members.

Adams, I. H., Macon, Ga.  
Anderson, C. L., Macon, Ga.  
Anderson, J. C., Macon, Ga.  
Barrow, H. L., Macon, Ga.  
Bashinski Benj., Macon, Ga.  
Blackshear, T. E., Macon, Ga.  
Carswell, N. T., Macon, Ga.  
Cater, Jr., R. L., Macon, Ga.  
Cleghorn, C. D., Macon, Ga.  
Clark, M. A., Macon, Ga.  
Cowart, J. W., Walden, Ga.

Corn, Ernest, Macon, Ga.  
Coleman, Y. R., Macon, Ga.  
Daniel, Orman, Macon, Ga.  
Derry, H. P., Macon, Ga.  
Duguid, J. W., Macon, Ga.  
Gewinner, N. G., Macon, Ga.  
Gostin, B. S., Macon, Ga.  
Greene, B. W., Macon, Ga.  
Harrold, C. C., Macon, Ga.  
Harris, E. C., Macon, Ga.  
Hall, T. H., Macon, Ga.  
Hinton, C. C., Macon, Ga.  
Holmes, J. P., Macon, Ga.  
Hurley, T. A., Macon, Ga.  
Henderson, D. T., Macon, Ga.  
Jackson, Max, Macon, Ga.  
Jemison, A. B., Macon, Ga.  
Johnson, J. E. L., Macon, Ga.  
Johnson, G. L., U. S. P. Hospital, Greenville, S. C.  
Johnston, F. C., Macon, Ga.  
Jones, E. F., Macon, Ga.  
Kennon, C. L., Macon, Ga.  
King, J. L., Macon, Ga.  
Kay, J. B., Byron, Ga.  
Key, F. P., Gordon, Ga.  
Kemp, A. P., Macon, Ga.  
Klausman, M., Macon, Ga.  
Martin, J. W., Macon, Ga.  
Massenburg, G. Y., Macon, Ga.  
Merriwether, W. W., Macon, Ga.  
Miller, G. T., Macon, Ga.  
Mitchell, F. B., Macon, Ga.  
Moore, K. P. (Honorary), Macon, Ga.

Moore, J. M., Macon, Ga.  
Mobley, W. E., Macon, Ga.  
Moses, Harry, Macon, Ga.  
McAfee, J. C., Macon, Ga.  
McAfee, L. C., Macon, Ga.  
McGee, J. P., Macon, Ga.  
McGill, R. E., Lizella, Ga.  
Newman, J. P., Macon, Ga.  
Newman, W. A., Macon, Ga.  
Pate, J. C., Macon, Ga.  
Palmer, S. B., Macon, Ga.  
Peavy, H. J., Macon, Ga.  
Pumpelly, W. C., Macon, Ga.  
Pennington, C. L., Macon, Ga.  
Respass, H., Macon, Ga.  
Richardson, Jr., C. H., Macon, Ga.  
Ross, J. T., Macon, Ga.  
Rozar, A. R., Macon, Ga.  
Rogers, T. E., Macon, Ga.  
Rushin, W. P., Macon, Ga.  
Rubin, S. N., Macon, Ga.  
Sigman, J. M., Macon, Ga.  
Stovall, R. H., Macon, Ga.  
Stapler, M. M., Macon, Ga.  
Spivey, O. S., Macon, Ga.  
Ward, J. H., Macon, Ga.  
Walker, Jr., T. D., Macon, Ga.  
Walker, C. H., Macon, Ga.  
Walker, D. D., Macon, Ga.  
Weaver, O. H., Macon, Ga.  
Webb, F. L., Macon, Ga.  
White, W. S., Fort Valley, Ga.  
Winship, Herring, Macon, Ga.  
Williams, D. C., Macon, Ga.  
Wright, J. E., Macon, Ga.

**BLUE RIDGE SOCIETY.****Officers.**

President .....Cox, C. G.  
 Vice-President .....Prince, A. L.  
 Secretary .. ..Crawford, C. B.

**Members.**

Cox, C. G., Ellijay, Ga.  
 Crawford, C. B., Blue Ridge, Ga.  
 Chastain, J. B., Blue Ridge, Ga.  
 Daves, J. M., Blue Ridge, Ga.  
 Goss, N. S., Ellijay, Ga.  
 Prince, E. L., Copperhill, Tenn.  
 Prince, A. L., Mineral Bluff, Ga.  
 Tankersly, J. S., Ellijay, Ga.

**BROOKS COUNTY.****Officers.**

Secretary .....McMichael, J. R.

**Members.**

Felder, L. A., Quitman, Ga.  
 Gauden, S. S., Quitman, Ga.  
 Jelks, E. L., Quitman, Ga.  
 King, J. T., Quitman, Ga.  
 Mathews, W., Quitman, Ga.  
 McMichael, J. R., Quitman, Ga.  
 Phillips, J. O., Quitman, Ga.  
 Smith, A. J., Quitman, Ga.  
 Smith, L. A., Quitman, Ga.  
 Ward, J. A., Quitman, Ga.

**BUTTS COUNTY.****Officers.**

President .....Byron, J. L.  
 Vice-President .....Steele, W. H.  
 Secretary .....White, A. T.

**Members.**

Akin, B. F., Jenkinsburg, Ga.  
 Byron, J. L., Jackson, Ga.  
 Copeland, H. W., Jackson, Ga.  
 Harper, J. W., Jenkinsburg, Ga.  
 Howell, O. B., Jackson, Ga.  
 Steele, W. H., Jackson, Ga.  
 Thaxton, J. M., Jackson, Ga.  
 Waits, W. J., Flovilla, Ga.  
 White, A. F., Flovilla, Ga.

**BULLOCH COUNTY.****Officers.**

President .....Cone, R. L.  
 Vice-President .....Temples, A.  
 Secretary ....Whiteside, J. H.  
 Delegate .....Floyd, F. F.

**Members.**

Cone, R. L., Statesboro, Ga.  
 Deal, B. A., Statesboro, Ga.  
 Floyd, F. F., Statesboro, Ga.  
 Grooms, T. L., Stilson, Ga.  
 Lively, M. M., Statesboro, Ga.  
 McElveen, J. M., Brooklet, Ga.  
 Moore, C. L., Statesboro, Ga.  
 Nevils, J. C., Register, Ga.  
 Olliff, H. G., Register, Ga.  
 Temples, A., Statesboro, Ga.  
 Watkins, E. R., Brooklet, Ga.  
 Whiteside, J. H., Statesboro, Ga.  
 Willson, J. F., Statesboro, Ga.

**BURKE COUNTY.****Officers.**

President .....Cox, C. H.  
 Vice-President .....Macaulay, H. A.  
 Secretary ... ..Macaulay, H. A.  
 Delegate .....

**Members.**

Bent, H. F., Midville, Ga.  
 Byne, J. M., Waynesboro, Ga.

Cox, C. H., Waynesboro, Ga.  
 Herrington, L. P., Waynesboro, Ga.

Hillis, W. W., Sardis, Ga.  
 Hudson, J. H., Gough, Ga.  
 Kelley, W. H., Waynesboro, Ga.  
 Lowe, W. R., Midville, Ga.  
 Macaulay, H. A., Waynesboro, Ga.  
 McCarver, W. C., Vidette, Ga.  
 Miller, R. L., Waynesboro, Ga.  
 Morton, J. H., Waynesboro, Ga.  
 Smith, B. H., Keysville, Ga.

**CAMPBELL COUNTY****Officers.**

President .....Hobgood, L. M.  
 Vice-President .....Camp, W. R.  
 Secretary ... ..Camp, R. T.  
 Delegate .....

**Members.**

Bullard, T. P., Palmetto, Ga.  
 Busey, T. J., Tyrone, Ga.  
 Camp, R. T., Fairburn, Ga.  
 Camp, W. R., Fairburn, Ga.  
 Harvey, C. H., Fairburn, Ga.  
 Hobgood, L. M., Fairburn, Ga.  
 Jones, A. B., Tyrone, Ga.  
 Thomason, J. W., Fairburn, Ga.

**CHATHAM COUNTY.****Officers.**

President .....Myers, W. H.  
 Vice-President .....Lee, Lawrence  
 Secretary .....Bishop, E. L.  
 Delegate .....Myers, W.

Adams, W. R., Oliver, Ga.  
 Baker, J. O., Savannah, Ga.  
 Barrow, Craig, Savannah, Ga.  
 Bishop, E. L., Savannah, Ga.  
 Chisolm, J. F., Savannah, Ga.  
 Cole, W. A., Savannah, Ga.  
 Corry, J. S., Savannah, Ga.  
 Compton, H. T., Savannah, Ga.  
 Corson, E. R., Savannah, Ga.  
 Crawford, W. B., Savannah, Ga.  
 Dancy, W. R., Savannah, Ga.  
 Daniel, J. W., Savannah, Ga.  
 Demmond, E. C., Savannah, Ga.  
 De Loach, L. A., Savannah, Ga.  
 Drane, Robert, Savannah, Ga.  
 DeCaradeus, Et., J. R., Savannah, Ga.

Egan, M. J., Savannah, Ga.  
 Ennis, F. B., Savannah, Ga.  
 Exley, H. T., Savannah, Ga.  
 Groover, G. L., Savannah, Ga.  
 Graham, R. E., Savannah, Ga.  
 Griffin, E. W., Savannah, Ga.  
 Hesse, W. W., Savannah, Ga.  
 Holmes, R. J., Savannah, Ga.  
 Jones, Jabez, Savannah, Ga.  
 Johnson, G. H., Savannah, Ga.  
 Kirkland, L., Savannah, Ga.  
 Lanier, L. H., Oliver, Ga.  
 Lang, G. N., Savannah, Ga.  
 Lattimore, R., Savannah, Ga.  
 Livingston, Henry, Savannah, Ga.  
 Martin, W. A., Savannah, Ga.  
 Martin, R. V., Savannah, Ga.  
 Martin, H. H., Savannah, Ga.  
 Meldrim, C. H., Savannah, Ga.  
 McBride, S., Savannah, Ga.  
 Morrison, J. E., Savannah, Ga.  
 Myers, W. H., Savannah, Ga.  
 Osborne, E. S., Savannah, Ga.  
 Rubine, Harry, Savannah, Ga.  
 Smith, W. W., Savannah, Ga.

Strickland, J. O., Pembroke, Ga.  
 Taylor, L. B., Savannah, Ga.  
 Train, J. K., Savannah, Ga.  
 Thomas, M. R., Savannah, Ga.  
 Tarver, H. R., Guyton, Ga.  
 Usher, Chas., Savannah, Ga.  
 White, G. R., Savannah, Ga.  
 Wilson, W. S., Savannah, Ga.  
 Williams, L. W., Savannah, Ga.  
 Waring, A. J., Savannah, Ga.  
 Wahl, F., Savannah, Ga.

**CLARK COUNTY.****Officers.**

President .....Goss, R. M.  
 Vice-President .....  
 Secretary .....Holliday, J. C.  
 Delegate .....

**Members.**

Cabiness, W. H., Athens, Ga.  
 Canning, G. T., Athens, Ga.  
 Chandler, B. B., Athens, Ga.  
 Coile, F. W., Winterville, Ga.  
 Crowe, L. H., Athens, Ga.  
 DuPree, D. H., Athens, Ga.  
 Fullilove, H. M., Athens, Ga.  
 Gerdine, Linton, Athens, Ga.  
 Goss, I. H., Athens, Ga.  
 Goss, R. M., Athens, Ga.  
 Holliday, A. C., Athens, Ga.  
 Holliday, J. C., Athens, Ga.  
 Holliday, P. L., Athens, Ga.  
 Mathews, W. F., Athens, Ga.  
 Middlebrooks, C. O., Athens, Ga.  
 McKinney, J. C., Athens, Ga.  
 Proctor, J. P., Athens, Ga.  
 Patton, A. B., Athens, Ga.  
 Reynolds, H. I., Lexington, Ga.  
 Smith, S. S., Athens, Ga.  
 Smith, J. M., Lexington, Ga.  
 Sisk, C. N., Athens, Ga.  
 West, A. L., Athens, Ga.

**COBB COUNTY.****Officers.**

President .....Middlebrooks, J. D.  
 Vice-President .....  
 Secretary .....Blair, L. L.  
 Delegate .....

**Members.**

Blair, L. L., Marietta, Ga.  
 Benson, W. E., Marietta, Ga.  
 Kemp, W. M., Marietta, Ga.  
 Middlebrooks, H. D., Powder Springs, Ga.  
 Mims, Frank, Marietta, Ga.  
 Nolan, C. T., Marietta, Ga.  
 Pace, W. T., Smyrna, Ga.  
 Powers, R. J., Roswell, Ga.  
 Perkinson, W. H., Marietta, Ga.  
 Stewart, J. C., Smyrna, Ga.

**COFFEE COUNTY.****Officers.**

Secretary .....Clark, T. H.

**Members.**

Clark, T. H., Douglas, Ga.  
 Coleman, A. S. M., Douglas, Ga.  
 Corbett, Joe, Pearson, Ga.  
 Hall, W. L., Nicholis, Ga.  
 Meeks, D. H., Nicholls, Ga.  
 Quillian, B. O., Willacoochee, Ga.  
 Rickerson, G. M., Broxton, Ga.  
 Shellhouse, L. H., Willacoochee, Ga.  
 Sibbett, W. A., Douglas, Ga.



Sibbett, W. F., Douglas, Ga.  
 Smith, H. P., Pearson, Ga.  
 Smith, J. R., Douglas, Ga.  
 Vinson, S. L., Nicholls, Ga.  
 Whelchel, H. C., Douglas, Ga.

**COLQUIT COUNTY.****Officers.**

President ..... Summerlin, J. A.  
 Vice-President ..... Bennett, W. L.  
 Secretary ..... Brannen, C. C.  
 Delegates ..... Massey, W. W.

**Members.**

Bennett, W. L., Moultrie, Ga.  
 Brannen, C. C., Moultrie, Ga.  
 Culpepper, J. G., Moultrie, Ga.  
 Daniels, Everett, Moultrie, Ga.  
 Folsome, G. H., Moultrie, Ga.  
 Hitchcock, C. M., Moultrie, Ga.  
 Hall, J. H., Norman Park, Ga.  
 Harrell, C. B., Moultrie, Ga.  
 Lanier, J. E., Moultrie, Ga.  
 Massey, W. W., Moultrie, Ga.  
 Stone, J. C., Doerun, Ga.  
 Slocum, C. B., Doerun, Ga.  
 Stewart, M. H., Moultrie, Ga.  
 Summerlin, J. A., Hartfield, Ga.  
 Withers, S. M., Moultrie, Ga.  
 Whittendale, W. H., Norman  
 Park, Ga.

**COWETA COUNTY.****Officers.**

President ..... Post, W. A.  
 Vice-President ..... Elliott, C. C.  
 Secretary ..... Barge, J. L.  
 Delegate ..... Peniston, J. B.

**Members.**

Bailey, T. S., Newnan, Ga.  
 Barge, A. A., Newnan, Ga.  
 Barge, J. L., Newnan, Ga.  
 Davis, T. B., Newnan, Ga.  
 Elliott, C. C., Sargents, Ga.  
 Haney, D. A., Newnan, Ga.  
 Hogg, A. R., Haralson, Ga.  
 Peniston, J. B., Newnan, Ga.  
 Post, W. A., Grantville, Ga.  
 Turner, W. A., Newnan, Ga.  
 Woodruff, W. L., Newnan, Ga.

**CRISP COUNTY.****Officers.**

President ..... Williams, S. F.  
 Vice-President ..... Whelchel, A. J.  
 Secretary ..... McKenzie, O. G.  
 Delegate .....

**Members.**

Bradley, T. E., Cordele, Ga.  
 Cox, Tip, Arabi, Ga.  
 Daniel, B., Cordele, Ga.  
 Edwards, W. E., Cordele, Ga.  
 Flournoy, H. C., Warwick, Ga.  
 Harvard, V. O., Arabi, Ga.  
 Heyward, A. R., Warwick, Ga.  
 Hunt, G. M. D., Cordele, Ga.  
 Hewell, W. C., Arabi, Ga.  
 Miller, W. A., Arabi, Ga.  
 McKenzie, O. G., Cordele, Ga.  
 McKenzie, J. S., Cordele, Ga.  
 McArthur, T. J., Cordele, Ga.  
 Smith, M. R., Cordele, Ga.  
 Ware, Ford, Cordele, Ga.  
 Ward, J. A., Cordele, Ga.  
 Whelchel, A. J., Cordele, Ga.  
 Williams, P. L., Cordele, Ga.  
 Williams, L. E., Cordele, Ga.  
 Williams, S. F., Cordele, Ga.

Wallace, F. R., Cordele, Ga.  
**DECATUR COUNTY.**

**Officers.**

President .....  
 Vice-President .....  
 Secretary ..... Lewis, P. M.  
 Delegate .....

**Members.**

Alford, A. E. B., Bainbridge, Ga.  
 Bridges, R. L. Z., Brinson, Ga.  
 Chason, Gordon, Bainbridge, Ga.  
 Chason, Thomas, Donalsonville,  
 Ga.  
 Christophine, S. A. V., Attapul-  
 gus, Ga.  
 Griffith, W. W., Bainbridge, Ga.  
 Lewis, P. M., Bainbridge, Ga.  
 Spengler, N. L., Donalsonville,  
 Ga.  
 Toole, J. E., Bainbridge, Ga.  
 Willis, L. W., Bainbridge, Ga.  
 Wilkinson, W. L., Bainbridge, Ga.  
 Wheat, R. F., Bainbridge, Ga.

**DODGE COUNTY.****Officers.**

President ..... Wilkins, A. L.  
 Vice-President .....  
 Secretary ..... Wall, J. C.  
 Delegate ..... Collum, O. F.

**Members.**

Burch, J. A., Eastman, Ga.  
 Coleman, W. A., Eastman, Ga.  
 Collum, O. F., Chauncey, Ga.  
 Herrman, J. D., Eastman, Ga.  
 Herrman, F. H., Eastman, Ga.  
 Powell, J. F., Gresston, Ga.  
 Puett, W. W., Rhine, Ga.  
 Smith, E. L., Plainsfield, Ga.  
 Wall, J. C., Eastman, Ga.  
 Wilkins, A. L., Eastman, Ga.

**DOOLY COUNTY.****Officers.**

President ..... Dykes, M. W.  
 Vice-President ..... Mobley, H. A.  
 Secretary ..... Williams, F. E.  
 Delegate .....

**Members.**

Bishop, L. H., Unadilla, Ga.  
 Bivins, T. F., Vienna, Ga.  
 Butler, W. I., Unadilla, Ga.  
 Daves, V. C., Vienna, Ga.  
 Davis, E. B., Byronville, Ga.  
 Dykes, M. W., Byronville, Ga.  
 Harris, J. C., Vienna, Ga.  
 Harris, V. L., Pinehurst, Ga.  
 Kitchens, O. W., Byronville, Ga.  
 Lee, J. L., Pinehurst, Ga.  
 Mobley, H. A., Vienna, Ga.  
 Pate, R. H., Unadilla, Ga.  
 Rose, J. R., Unadilla, Ga.  
 Teasley, J. O., Lilly, Ga.  
 Williams, F. E., Vienna, Ga.

**DOUGHERTY COUNTY.****Officers.**

President ..... Sapp, E. F.  
 Vice-President ..... Cook, W. S.  
 Secretary ..... Wood, A. W.  
 Delegate ..... Benson, N. E.

**Members.**

Barnett, J. M., Albany, Ga.  
 Benson, N. E., Albany, Ga.  
 Cook, W. S., Albany, Ga.  
 Davis, W. L., Albany, Ga.  
 Hillsman, A. H., Albany, Ga.

Keaton, J. C., Albany, Ga.  
 Newell, C. E., Albany, Ga.  
 Pearson, R. J., Albany, Ga.  
 Redfern, J. A., Albany, Ga.  
 Robles, H. C., Albany, Ga.  
 Sapp, E. F., Albany, Ga.  
 Welch, L. E., Albany, Ga.  
 Wood, A. W., Albany, Ga.

**ELBERT COUNTY.****Officers.**

President ..... Smith, A. C.  
 Vice-President ..... Mattox, B. B.  
 Secretary ..... Eberhardt, L. P.  
 Delegate .....

**Members.**

Alexander, C. L., Elberton Ga.  
 R. F. D.  
 Bailey, D. V., Elberton, Ga.  
 Bryan, Jasper, Dewey Rose, Ga.  
 Eberhardt, L. P., Elberton, Ga.  
 Gaines, T. H., Elberton, Ga.  
 Johnson, A. S., Elberton, Ga.  
 Johnson, J. E., Elberton, Ga.  
 Matthews, W. J., Elberton, Ga.  
 Mattox, B. B., Elberton, Ga.  
 Smith, A. C., Elberton, Ga.  
 Stovall, A. S. J., Elberton, Ga.  
 Thompson, D. N., Elberton, Ga.  
 Walker, O. B., Bowman, Ga.  
 Ward, G. A., Elberton, Ga.

**EMANUEL COUNTY.****Officers.**

President ..... Franklin, R. C.  
 Vice-President ..... Johnson, A. C.  
 Secretary ..... Blackman, T. E.  
 Delegate ..... Bailey, J. D.

**Members.**

Bailey, J. D., Garfield, Ga.  
 Blackburn, T. E., Swainsboro, Ga.  
 Bowie, J. W., Summitt, Ga.  
 Chandler, J. H., Swainsboro, Ga.  
 Coleman, E. T., Graymont, Ga.  
 Durden, J. W., Summitt, Ga.  
 English, R. L., Stillmore, Ga.  
 Franklin, R. C., Swainsboro, Ga.  
 Franklin, V. E., Graymont, Ga.  
 Johnson, A. C., Garfield, Ga.  
 Johnson, B. F., Garfield, Ga.  
 Lagrove, D. C., Summertown, Ga.  
 Lanier, Ivey, Wesley, Ga.  
 Riner, C. R., Summitt, Ga.  
 Sampler, R. L., Summitt, Ga.  
 Smith, D. D., Swainsboro, Ga.  
 Smith, G. L., Swainsboro, Ga.  
 Youmans, L. P., Swainsboro, Ga.

**FLOYD COUNTY.****Officers.**

President ..... Shamblin, A. C.  
 Vice-President ..... Turner, H. A.  
 Secretary ..... McCord, M. M.  
 Delegate ..... Cox, R. P.

**Members.**

Ballenger, J. P., Armuchee, Ga.  
 R. 3.  
 Chandler, J. L., Rome, Ga.  
 Cheney, J. N., Silver Creek, Ga.  
 Cox, R. P., Rome, Ga.  
 Dellinger, A. H., Rome, Ga.  
 Floyd, W. B., Rome, Ga.  
 Garrard, J. L., Rome, Ga.  
 Griffin, J. H., Armuchee, Ga.  
 Hamilton, Chas., Rome, Ga.  
 Harbin, R. M., Rome, Ga.  
 Harbin, W. P., Rome, Ga.

Lewis, W. H., Rome, Ga.  
 Maddox, R. C., Rome, Ga.  
 McArthur, C. H., Curryville, Ga.  
 McCall, J. F., Rome, Ga.  
 McCord, M. M., Rome, Ga.  
 Mull, J. H., Rome, Ga.  
 Munro, Catherine, Columbia, S. C.  
 Moore, Clifford, Lindale, Ga.  
 Routledge, A. F., Rome, Ga.  
 Russell, R. D., Rome, Ga.  
 Shamblin, A. C., Rome, Ga.  
 Shaw, W. J., Rome, Ga.  
 Simmons, R. O., Rome, Ga.  
 Smith, G. B., Rome, Ga.  
 Turner, H. A., Rome, Ga.  
 Watts, J. C., Rome, Ga.  
 Wicker, R. H., Rome, Ga.

#### FRANKLIN COUNTY.

##### Members.

Ridgway, G. T., Royston, Ga.

#### FULTON COUNTY.

##### Officers.

President ..... Emery, W. B.  
 Vice-President ..... Boland, F. K.  
 Secretary ..... Waits, C. E.

##### Members.

Abercomble, T. F., Atlanta, Ga.  
 Adams, C. R., College Park, Ga.  
 Adkins, W. N., Atlanta, Ga.  
 Alken, W. S., Atlanta, Ga.  
 Allgood, C. L., Scottdale, Ga.  
 Almand, C. A., Atlanta, Ga.  
 Alpert, N., Atlanta, Ga.  
 Amster, L., Atlanta, Ga.  
 Anderson, W. W., Atlanta, Ga.  
 Anderson, A. M., Atlanta, Ga.  
 Armstrong, T. B., Atlanta, Ga.  
 Avery, A., Atlanta, Ga.  
 Avery, J. C., Atlanta, Ga.  
 Aycock, J. C., Atlanta, Ga.  
 Ayer, G. D., Atlanta, Ga.  
 Ayers, A. J., Atlanta, Ga.  
 Baggett, L. G., Atlanta, Ga.  
 Baird, Sr., J. B., Atlanta, Ga.  
 Baker, L. P., Atlanta, Ga.  
 Ballenger, E. G., Atlanta, Ga.  
 Ballenger, W. L., Atlanta, Ga.  
 Barfield, F. M., Atlanta, Ga.  
 Barfield, J. R., Atlanta, Ga.  
 Barnett, S. T., Atlanta, Ga.  
 Bartholomew, R. A., Atlanta, Ga.  
 Beasley, B. T., Atlanta, Ga.  
 Benson, M. T., Atlanta, Ga.  
 Barber, W. E., Atlanta, Ga.  
 Best, P. W., Atlanta, Ga.  
 Blvings, F. C., Atlanta, Ga.  
 Blvings, W. T., Atlanta, Ga.  
 Blackburn, J. D., Atlanta, Ga.  
 Blackman, W. W., Atlanta, Ga.  
 Blanford, W. C., Atlanta, Ga.  
 Block, E. B., Atlanta, Ga.  
 Blosser, Roy, Atlanta, Ga.  
 Roland, F. K., Atlanta, Ga.  
 Bomer, B. S., Atlanta, Ga.  
 Boyd, M. L., Atlanta, Ga.  
 Boynton, C. E., Atlanta, Ga.  
 Bradford, J. H., Atlanta, Ga.  
 Brawner, J. N., Atlanta, Ga.  
 Brown, Alfred, Atlanta, Ga.  
 Bucknell, Howard, Atlanta, Ga.  
 Buff, J. H., Atlanta, Ga.  
 Bunce, Allen, H., Atlanta, Ga.  
 Bush, O. B., Atlanta, Ga.  
 Byrd, E. S., Atlanta, Ga.  
 Byrd, H. O., Atlanta, Ga.

Caldwell, A. F., Atlanta, Ga.  
 Caldwell, G. A., Atlanta, Ga.  
 Calhoun, F. P., Atlanta, Ga.  
 Callaway, J. T., Atlanta, Ga.  
 Campbell, J. L., Atlanta, Ga.  
 Campbell, M. G., Atlanta, Ga.  
 Campbell, W. E., Atlanta, Ga.  
 Campbell, Jr., W. E., Atlanta, Ga.

Ga.

Carter, H. G., Atlanta, Ga.  
 Carter, R. L., Atlanta, Ga.  
 Cartledge, E. C., Atlanta, Ga.  
 Catron, I. T., Atlanta, Ga.  
 Champion, W. L., Atlanta, Ga.  
 Childs, J. R., Atlanta, Ga.  
 Childs, L. W., Atlanta, Ga.  
 Clarke, L. B., Atlanta, Ga.  
 Clark, J. J., Atlanta, Ga.  
 Clay, G. E., Atlanta, Ga.  
 Clifton, Ben Hill, Lyons, Ga.  
 Cole, G. C., Atlanta, Ga.  
 Collier, T. J., Atlanta, Ga.  
 Collins, Catherine R., Buffalo, New York.

Colvin, E. S., Atlanta, Ga.  
 Cooke, V. C., Atlanta, Ga.  
 Copeloff, M. B., Atlanta, Ga.  
 Corley, F. L., Atlanta, Ga.  
 Craig, Newton, Atlanta, Ga.  
 Crawford, H. C., Atlanta, Ga.  
 Crenshaw, Hansell, Atlanta, Ga.  
 Curtis, C. M., College Park, Ga.  
 Dabney, W. C., Atlanta, Ga.  
 Daly, R. R., Atlanta, Ga.  
 Daniel, E. L., Atlanta, Ga.  
 Davis, E. C., Atlanta, Ga.  
 Davis, J. B., Atlanta, Ga.  
 Davis, J. E., Atlanta, Ga.  
 Davis, M. T., Atlanta, Ga.  
 Davison, T. C., Atlanta, Ga.  
 DeLoach, A. G., Atlanta, Ga.  
 Denton, J. F., Atlanta, Ga.  
 Derr, J. S., Atlanta, Ga.  
 Dimmock, A. M., Atlanta, Ga.  
 Dorsey, R. T., Atlanta, Ga.  
 Dowman, C. E., Atlanta, Ga.  
 Duncan, B. C., Atlanta, Ga.  
 Dunn, W. M., Atlanta, Ga.  
 Duvall, W. B., Atlanta, Ga.  
 Elder, O. F., Atlanta, Ga.  
 Elkin, Arch, Atlanta, Ga.  
 Elkin, W. S., Atlanta, Ga.  
 Ellis, G. N., Atlanta, Ga.  
 Emery, W. B., Atlanta, Ga.  
 Equin, M. S., Atlanta, Ga.  
 Eskridge, Frank, Atlanta, Ga.  
 Estes, H. G., Atlanta, Ga.  
 Etheridge, W. M., Atlanta, Ga.  
 Farmer, M. H., Atlanta, Ga.  
 Fincher, E. F., Atlanta, Ga.  
 Fischer, L. C., Atlanta, Ga.  
 Fitts, J. B., Atlanta, Ga.  
 Flicks, W. D., Atlanta, Ga.  
 Flowers, A. P., Atlanta, Ga.  
 Fort, A. G., Atlanta, Ga.  
 Foster, K. E., College Park, Ga.  
 Fowler, A. L., Atlanta, Ga.  
 Fuller, George, Atlanta, Ga.  
 Fuller, J. R., Atlanta, Ga.  
 Funke, John, Atlanta, Ga.  
 Funkhouser, W. L., Atlanta, Ga.  
 Galnes, L. M., Atlanta, Ga.  
 Galnes, T. R., Hartwell, Ga.  
 Gardner, W. A., Buckhead, Ga.  
 Garner, J. R., Atlanta, Ga.  
 Giddings, Glennville, Atlanta, aG.  
 Gilbert, W. L., Atlanta, Ga.

Goldsmith, W. S., Atlanta, Ga.  
 Goodpasture, W. C., Atlanta, Ga.  
 Goodwyn, T. P., Atlanta, Ga.  
 Graham, St., J. B., Atlanta, Ga.  
 Greene, E. H., Atlanta, Ga.  
 Grove, L. W., Atlanta, Ga.  
 Guffin, T. F., Atlanta, Ga.  
 Guinn, J. A., Conyers, Ga.  
 Hall, C. E., Atlanta, Ga.  
 Hall, O. D., Atlanta, Ga.  
 Hancock, T. H., Atlanta, Ga.  
 Hardin, L. S., Atlanta, Ga.  
 Hardegree, H. C., Atlanta, Ga.  
 Hauck, L. B., Atlanta, Ga.  
 Hauck, W. H., Atlanta, Ga.  
 Hawkins, D. B., Atlanta, Ga.  
 Haygood, M. F., Atlanta, Ga.  
 Henley, J. T., Atlanta, Ga.  
 Heyser, D. T., Atlanta, Ga.  
 Highsmith, E. D., Atlanta, Ga.  
 Hines, J. H., Atlanta, Ga.  
 Hinkle, F. W., Atlanta, Ga.  
 Hodges, J. H., Hapeville, Ga.  
 Hodges, W. A., Atlanta, Ga.  
 Hodgson, F. G., Atlanta, Ga.  
 Hoke, A. M., Atlanta, Ga.  
 Holland, Robert, Atlanta, Ga.  
 Holmes, Jr., W. R., Atlanta, Ga.  
 Holmes, W. R., Atlanta, Ga.  
 Holt, R. R., Atlanta, Ga.  
 Horton, B. E., Atlanta, Ga.  
 Hudson, P. L., Atlanta, Ga.  
 Huguley, J. P., Atlanta, Ga.  
 Hull, M., McH., Atlanta, Ga.  
 Hurt, J. S., Atlanta, Ga.  
 Hutchins, M. B., Atlanta, Ga.  
 Johnson, J. C., Atlanta, Ga.  
 Jones, E. G., Atlanta, Ga.  
 Jenkins, M. K., Atlanta, Ga.  
 Kinard, J. O., Atlanta, Ga.  
 Kirkland, Grace, Atlanta, Ga.  
 Knight, J. H., Atlanta, Ga.  
 Kraft, H. N., Atlanta, Ga.  
 Kea, V. E., Atlanta, Ga.  
 Landham, J. W., Atlanta, Ga.  
 Lawrence, C. E., Atlanta, Ga.  
 Lee, C. A., Atlanta, Ga.  
 Liebman, J. S., Atlanta, Ga.  
 Lokey, H. M., Atlanta, Ga.  
 Longino, D. R., Atlanta, Ga.  
 Lott, Y. C., Atlanta, Ga.  
 Lyle, W. C., Atlanta, Ga.  
 Manget, J. D., Atlanta, Ga.  
 Martin, J. J., Atlanta, Ga.  
 Mashburn, C. M., Atlanta, Ga.  
 Massoud, M. A., Atlanta, Ga.  
 Matthews, O. H., Atlanta, Ga.  
 McAlilly, George, Atlanta, Ga.  
 McDougall, J. C., Atlanta, Ga.  
 McDuffie, H. F., Atlanta, Ga.  
 McGehee, H. M., Atlanta, Ga.  
 McRae, Jr., F. W., Atlanta, Ga.  
 McRae, J. C., Atlanta, Ga.  
 Miller, H. C., Atlanta, Ga.  
 Miller, O. L., Atlanta, Ga.  
 Minor, H. W., Atlanta, Ga.  
 Moon, P. L., Atlanta, Ga.  
 Morris, M. F., Atlanta, Ga.  
 Murphy, C. E., Atlanta, Ga.  
 Murray, G. M., Atlanta, Ga.  
 Nesbit, F. C., Atlanta, Ga.  
 Nicholson, Jr., W. P., Atlanta, Ga.  
 Nicholson, W. P., Atlanta, Ga.  
 Niles, G. M., Atlanta, Ga.  
 Noble, G. H., Atlanta, Ga.  
 Noble, Jr., G. H., Atlanta, Ga.

Owensby, N. M., Atlanta, Ga.  
 Paine, C. H., Atlanta, Ga.  
 Patillo, C. E., Atlanta, Ga.  
 Paullin, J. E., Atlanta, Ga.  
 Pearce, B. E., Atlanta, Ga.  
 Pentecost, M. P., Atlanta, Ga.  
 Person, W. E., Atlanta, Ga.  
 Powell, John, Atlanta, Ga.  
 Powell, W. M., Atlanta, Ga.  
 Pruitt, M. C., Atlanta, Ga.  
 Quillian, W. E., Atlanta, Ga.  
 Quillian, G. W., Atlanta, Ga.  
 Ragan, Jr., W. E., Atlanta, Ga.  
 Ratliff, J. W., Atlanta, Ga.  
 Reed, Clinton, Atlanta, Ga.  
 Reid, K. L., Atlanta, Ga.  
 Reynolds, H. L., Atlanta, Ga.  
 Rhodes, C. A., Atlanta, Ga.  
 Ridley, Jr., R. B., Atlanta, Ga.  
 Roberts, C. W., Atlanta, Ga.  
 Roberts, J. W., Atlanta, Ga.  
 Roberts, S. R., Atlanta, Ga.  
 Roberts, T. R., Atlanta, Ga.  
 Robinson, L. B., Atlanta, Ga.  
 Robinson, W. C., Atlanta, Ga.  
 Rosenberg, H. J., Atlanta, Ga.  
 Rouglin, L. C., Atlanta, Ga.  
 Roy, Dunbar, Atlanta, Ga.  
 Rushin, C. E., Atlanta, Ga.  
 Sage, D. Y., Atlanta, Ga.  
 Sauls, H. C., Atlanta, Ga.  
 Savage, J. H., Atlanta, Ga.  
 Sawyer, Annie, L., Atlanta, Ga.  
 Selman, W. A., Atlanta, Ga.  
 Schmeisser, H. S., Emory University, Ga.  
 Shallenberger, W. F., Atlanta, Ga.  
 Shanks, E. D., Atlanta, Ga.  
 Sharp, W. B., Atlanta, Ga.  
 Sinkoe, S. J., Atlanta, Ga.  
 Smith, Archibald, Atlanta, Ga.  
 Smith, J. G., McDonough, Ga.  
 Snyder, H. D., Atlanta, Ga.  
 Sommerfield, J. E., Atlanta, Ga.  
 Spearman, C. F., Atlanta, Ga.  
 Stampa, Samuel, Atlanta, Ga.  
 Stephens, L. P., Atlanta, Ga.  
 Stephens, R. G., Atlanta, Ga.  
 Sterling, A. W., Atlanta, Ga.  
 Stockard, Cecil, Atlanta, Ga.  
 Strickler, C. W., Atlanta, Ga.  
 Sutton, F. M., Atlanta, Ga.  
 Swanson, C., Atlanta, Ga.  
 Sweet, Mary F., Atlanta, Ga.  
 Thomas, Elsie B., Atlanta, Ga.  
 Thompson, J. D., Atlanta, Ga.  
 Thornton, Lawson, Atlanta, Ga.  
 Thrash, E. C., Atlanta, Ga.  
 Toepel, Theo, Atlanta, Ga.  
 Trimble, G. C., East Point, Ga.  
 Turner, J. W., Atlanta, Ga.  
 Upshaw, C. B., Atlanta, Ga.  
 Van Der Veer, F. E., Atlanta, Ga.  
 Van Dyke, A. H., Atlanta, Ga.  
 Vaughn, H., Atlanta, Ga.  
 Vermilye, J. H., Atlanta, Ga.  
 Visanski, S. A., Atlanta, Ga.  
 Vogt, F., Atlanta, Ga.  
 Wagon, B. H., Atlanta, Ga.  
 Waits, C. E., Atlanta, Ga.  
 Ward, B. H. H., Atlanta, Ga.  
 Ward, C. P., Atlanta, Ga.  
 Warren, W. C., Atlanta, Ga.  
 Weaver, J. C., Atlanta, Ga.  
 Weinkle, B. O., Atlanta, Ga.  
 Wells, W. F., Atlanta, Ga.  
 West, C. M., Atlanta, Ga.

Westmoreland, W. F., Atlanta, Ga.  
 White, J. C., Atlanta, Ga.  
 Wood, E. B., Atlanta, Ga.  
 Yankey, W. E., Atlanta, Ga.  
 Young, W. W., Atlanta, Ga.

**GLYNNE COUNTY.****Officers.**

President .....Fox, R. L.  
 Vice-President .....Cates, G. V.  
 Secretary .....Greer, C. B.  
 Delegate .....Fox, R. L.

**Members.**

Branha, H. M., Brunswick, Ga.  
 Burford, R. E. L., Brunswick, Ga.  
 Cates, G. V., Brunswick, Ga.  
 Darby, V. L., Brunswick, Ga.  
 Dunwoody, J. A., Brunswick, Ga.  
 Fox, R. L., Brunswick, Ga.  
 Greer, C. B., Brunswick, Ga.  
 Harrell, T. P., Brunswick, Ga.  
 Odum, W. M., Brunswick, Ga.  
 Simmons, J. W., Brunswick, Ga.  
 Todd, R. W., Brunswick, Ga.

**GORDON COUNTY.****Officers.**

Secretary .....Richards, W. R.

**Members.**

Erwin, J. M., Calhoun, Ga.  
 Horton, A. L., Oakman, Ga.  
 Jackson, Z. V., Calhoun, Ga. R. 1.  
 McLain, C. F., Calhoun, Ga.  
 Richards, W. R., Calhoun, Ga.  
 Shellhorse, E. O., Calhoun, Ga.  
 Starr, T., Calhoun, Ga.

**GRADY COUNTY.****Officers.**

President .....Warnell, J. B.  
 Vice-President .....  
 Secretary .....Wright, J. E.  
 Delegate .....

**Members.**

Arline, T. J., Cairo, Ga.  
 Brawner, L. E., Cairo, Ga.  
 Carter, G. L., Cairo, Ga.  
 Harden, J. E., Whigham, Ga.  
 Lindsay, J. A., Cairo, Ga.  
 Lindsay, R. P., Cairo, Ga.  
 Maxwell, C. H., Calvary, Ga.  
 Oliver, W. E., Cairo, Ga.  
 Reynolds, A. B., Reno, Ga.  
 Walker, W. A., Cairo, Ga.  
 Warnell, J. B., Cairo, Ga.  
 Wright, J. E., Cairo, Ga.

**GREENE COUNTY.**

Adams, E. G., Greensboro, Ga.  
 Asbury, J. C., Greensboro, Ga.  
 Foster, H. C., Greensboro, Ga.  
 Ghesling, Goodwin, Greensboro, Ga.

**GWINNETT COUNTY.****Officers.**

Secretary .....Kelley, D. C.

**Members.**

Hamrick, H. P., Buford, Ga.  
 Hinton, W. T., Dacula, Ga.  
 Hutchins, W. J., Buford, Ga.  
 Kelley, C. A., Lilburn, Ga.  
 Kelley, D. C., Lawrenceville, Ga.  
 Kelley, G. S., Lawrenceville, Ga.  
 Wilson, B. V., Dacula, Ga.

**Officers.**

President .....Duckett, P. Y.  
 Vice-President .....Jackson, J. B.  
 Secretary .....Chandler, W. V.  
 Delegate .....

**Members.**

Burns, Jr., J. K., Clarksville, Ga.  
 Burns, Sr., J. K., Clarksville, Ga.  
 Chandler, W. V., Baldwin, Ga.  
 Duckett, P. Y., Cornelia, Ga.  
 Jackson, J. B., Clarksville, Ga.  
 Lam, E. H., Demorest, Ga.  
 Lamb, R. B., Demorest, Ga.

**HALL COUNTY.****Officers.**

President .....Whelchel, C. D.  
 Vice-President .....Meeks, J. L.  
 Secretary .....Cheek, Pratt  
 Delegate .....Rudolph, John.

**Members.**

Bryson, L. R., Gainesville, Ga.  
 Cheek, Pratt, Gainesville, Ga.  
 Downey, J. H., Gainesville, Ga.  
 Gibbs, E. T., Gainesville, Ga.  
 Gower, Charley, Gainesville, Ga.  
 Ham, E. P., Gainesville, Ga.  
 Mauldin, J. D., Gainesville, Ga.  
 Meeks, J. L., Gainesville, Ga.  
 Meeks, W. T., Gainesville, Ga.  
 Neal, L. G., Cleveland, Ga.  
 Orr, J. C., Flowery Branch, Ga.  
 Rudolph, J. B., Gainesville, Ga.  
 Simpson, J. R., Gainesville, Ga.  
 Whelchel, C. D., Gainesville, Ga.  
 White, A. D., Gainesville, Ga.

**HART COUNTY.****Officers.**

President .....Teasley, B. C.  
 Vice-President .....  
 Secretary .....Clark, G. S.  
 Delegate .....

**Members.**

Clark, G. S., Hartwell, Ga.  
 Hanle, A. P., Hartwell, Ga.  
 Harper, G. T., Hartwell, Ga.  
 Jenkins, J. C., Hartwell, Ga.  
 McCurry, W. E., Hartwell, Ga.  
 Meredith, A. O., Hartwell, Ga.  
 Teasley, B. C., Hartwell, Ga.

**HENRY COUNTY.**

President .....Scott, D. W.  
 Vice-President .....Combs, J. A.  
 Secretary .....Williams, W. A.  
 Delegate .....  
 Colvin, E. G., Locust Grove, Ga.  
 Combs, J. A., Locust Grove, Ga.  
 Crawford, R. L., Locust Grove, Ga.

Ellis, H. C., McDonough, Ga.  
 Scott, A. R., McDonough, Ga.  
 Scott, D. W., McDonough, Ga.  
 Sloan, W. P., McDonough, Ga.  
 Smith, J. G., McDonough, Ga.  
 Tye, R. L., McDonough, Ga.  
 Wallis, J. R., Lovejoy, Ga.  
 Welden, J. B., Hampton, Ga.  
 Williams, W. A., McDonough, Ga.

**HOUSTON COUNTY.****Members.**

Story, J. W., Kathleen, Ga.

**IRWIN COUNTY.****Officers.**

Secretary .....Willis, G. W.



**Members.**

Dismuke, W. J., Ocilla, Ga.  
 Luke, J. C., Ocilla, Ga.  
 Lyon, H. P., Mystic, Ga.  
 McElroy, S. L., Ocilla, Ga.  
 McLeod, R. F., Ocilla, Ga.  
 Whidden, L. L., Ocilla, Ga.  
 Willis, G. W., Ocilla, Ga.

**JACKSON COUNTY.****Officers.**

Secretary .....Bennett, J. C.

**Members.**

Allen, L. C., Hoschton, Ga.  
 Allen, M. B., Hoschton, Ga.  
 Bennett, J. C., Jefferson, Ga.  
 Campbell, J. H., Jefferson, Ga.  
 Crow, H. E., Talmo, Ga.  
 Freeman, Ralph, Hoschton, Ga.  
 Glidden, E. W., Alto, Ga.  
 Hardman, L. G., Commerce, Ga.  
 Hubbard, F. M., Commerce, Ga.  
 Kennedy, W. C., Talmo, Ga.  
 McDonald, E. M., Jefferson, Ga.  
 Nelms, M. F., Commerce, Ga.  
 Pendergrass, J. B., Jefferson, Ga.  
 Rogers, A. A., Commerce, Ga.  
 Sanders, Laetus, Commerce, Ga.  
 Shankle, O. E., Commerce, Ga.  
 Sharp, L. J., Commerce, Ga.  
 Smith, S. J., Jefferson, Ga.  
 Verner, J. C., Commerce, Ga.

**JASPER COUNTY.****Officers.**

President .....Anderson, J. F.  
 Vice-President .....Payne, J. W.  
 Secretary .....Davis, J. V.  
 Delegate .....Cary, R. F.

**Members.**

Anderson, J. F., Hillsboro, Ga.  
 Belcher, F. S., Monticello, Ga.  
 Brown, J. A., Shady Dale, Ga.  
 Bullard, J. H., Machen, Ga.  
 Cary, R. F., Monticello, Ga.  
 Davis, J. V., Monticello, Ga.  
 Payne, J. W., Monticello, Ga.  
 Pittard, L. H., Monticello, Ga.  
 Ridley, C. L., Hillsboro, Ga.

**JEFFERSON COUNTY.****Officers.**

President .....Holmes, W. B.  
 Vice-President .....  
 Secretary .....Lewis, J. R.  
 Delegate .....

**Members.**

Harvey, W. L., Bartow, Ga.  
 Holmes, W. B., Wadley, Ga.  
 Jordan, W. B., Wadley, Ga.  
 Lewis, J. R., Louisville, Ga.  
 Peacock, J. D., Wadley, Ga.

**JENKINS COUNTY.****Officers.**

President .....Kirkendol, J. L.  
 Vice-President .....Johnston, J. A.  
 Secretary .....Thompson, Cleveland.  
 Delegate .....Kirkendol, J. L.

**Members.**

Johnston, J. A., Millen, Ga.  
 Kirkendol, J. L., Millen, Ga.  
 Lane, R. H., Millen, Ga.  
 Mulkey, Q. A., Millen, Ga.  
 Rushing, M. E., Perkins, Ga.  
 Thompson, C., Millen, Ga.

**JOHNSON COUNTY.****Officers.**

President .....Harrison, D. C.  
 Vice-President .....Brantley, J. G.  
 Secretary .....Brinson, R. E.  
 Delegate .....Beddingfield, P. B.

**Members.**

Beddingfield, P. B., Wrightsville, Ga.  
 Brantley, J. G., Wrightsville, Ga.  
 Brinson, R. E., Wrightsville, Ga.  
 Harrison, T. L., Wrightsville, Ga.  
 Harrison, D. C., Kite, Ga.  
 Johnson, S. M., Wrightsville, Ga.  
 Meeks, J. A., Kite, Ga.  
 Page, T. S., Wrightsville, Ga.

**JONES COUNTY.****Officers.**

President .....Riley, J. H.  
 Vice-President .....Zachry, J. D.  
 Secretary .....Chambliss, P. R.  
 Delegate .....

**Members.**

Chambliss, P. R., Gray, Ga.  
 Riley, J. H., Gray, Ga.  
 Roland, S. B., Gray, Ga.  
 White, B. L., Gray, Ga.  
 Zachry, J. D., Gray, Ga.

**LAURENS COUNTY.****Officers.**

President .....Weddington, J. L.  
 Vice-President .....Thompson, W. C.  
 Secretary, ...Blackshear, Jr., T. J.  
 Delegate .....Barton, J. J.

**Members.**

Barton, J. J., Dublin, Ga.  
 Blackshear, T. J., Dublin, Ga.  
 Brigham, W. R., Dublin, Ga.  
 Carter, J. G., Scott, Ga.  
 Chappell, R. J., Dudley, Ga.  
 Cheek, O. H., Dublin, Ga.  
 Claxton, E. B., Dublin, Ga.  
 Coleman, A. T., Dublin, Ga.  
 Duggan, J. H., Irwinton, Ga.  
 Edmundson, J. W., Dublin, Ga.  
 Hodges, C. A., Dublin, Ga.  
 Massey, W. F., Chester, Ga.  
 Mays, C. G., Brewton, Ga.  
 Montford, H. L., Dublin, Ga.  
 Moore, J. H., Dublin, Ga.  
 New, J. E., Dexter, Ga.  
 Shellnut, W. C., Montrose, Ga.  
 Thompson, W. C., Dublin, Ga.  
 Walker, Sidney, Dublin, Ga.  
 Weddington, J. L., Dublin, Ga.

**LOWNDES COUNTY.****Officers.**

President .....Mixon, J. F.  
 Vice-President Quarterman, P. C.  
 Secretary .....Smith, T. H.  
 Delegate .....Mixon, J. F.

**Members.**

Allen, G. O., Fargo, Ga.  
 Applewhite, J. D., Valdosta, Ga.  
 Bird, Frank, Valdosta, Ga.  
 Freeman, D. W., Valdosta, Ga.  
 Griffin, A., Valdosta, Ga.  
 Little, A. G., Valdosta, Ga.  
 Mixson, J. F., Valdosta, Ga.  
 Pennington, T. E., Naylor Ga.  
 Pennington, J. W., Howell, Ga.  
 Prescott, J. P., Lake Park, Ga.  
 Quarterman, P. C., Valdosta, Ga.

Quillian, E. P., Clyattville, Ga.  
 Rose, E. P., Valdosta, Ga.  
 Shaw, F. M., Barretts, Ga.  
 Smisson, R. C., Valdosta, Ga.  
 Smith, E. J., Valdosta, Ga.  
 Smith, J. M., Valdosta, Ga.  
 Smith, T. H., Valdosta, Ga.  
 Talbot, T. M., Valdosta, Ga.  
 Thomas, F. H., Valdosta, Ga.  
 Thomas, J. A., Valdosta, Ga.  
 Wilson, J. C., Valdosta, Ga.

**MACON-TAYLOR COUNTY.****Officers.**

Secretary .....Ware, A. D.

**Members.**

Bryan, S. H., Reynolds, Ga.  
 Frederick, D. B., Marshallville, Ga.  
 Fickling, C. F., Butler, Ga.  
 Greer, C. A., Oglethorpe, Ga.  
 Gregory, J. M., Montezuma, Ga.  
 Harlam, J. E., Marshallville, Ga.  
 Mangham, J. E., Reynolds, Ga.  
 Montgomery, R. C., Butler, Ga.  
 Mitchell, C. M., Montezuma, Ga.  
 Mullino, F. M., Marshallville, Ga.  
 Richardson, C. H., Montezuma, Ga.  
 Turk, T. G., Reynolds, Ga.  
 Ware, A. D., Marshallville, Ga.

**MADISON COUNTY.****Officers.**

President .....Roper, L. E.  
 Vice-President .....Daniel, J. S.  
 Secretary .....Baker, J. L.  
 Delegate .....Wallace, J. W.

**Members.**

Banker, J. L., Carlton, Ga.  
 Daniel, J. S., Danielsville, Ga.  
 Deadwyler, O. L., Carlton, Ga.  
 Gholston, W. D., Danielsville, Ga.  
 Loden, G. L., Colbert, Ga.  
 Raper, L. E., Comer, Ga.  
 Westbrook, R. J., Ila, Ga.

**MARION COUNTY.**

McMichael, R. L., Beuna Vista, Ga.

**MERIWEATHER COUNTY.**

President .....Terrell, E. B.  
 Secretary .....Norman, F. P.  
 Bennett, V. H., Gay, Ga.  
 Brock, B. H., Greenville, Ga.  
 Dixon, J. L., Woodbury, Ga.  
 Ebbett, C. A. P., Hogansville, Ga.  
 R. F. D.

Gilbert, R. B., Greenville, Ga.  
 Hardaway, R. A., Luthersville, Ga.

Johnson, J. A., Manchester, Ga.  
 Lipscomb, H. R., Manchester, Ga.  
 Norman, F. P., Greenville, Ga.  
 Pinkston, J. W., Greenville, Ga.  
 Terrell, E. B., Greenville, Ga.  
 Thrash, J. A., 1608 W. Madison St., Chicago, Ill.

Usery, T. S., Woodbury, Ga.  
 Williams, V. C., Odessadale, Ga.

**MITCHELL COUNTY.****Officers.**

President .....Brown, J. L.  
 Secretary .....Stevenson, C. A.

**Members.**

Brown, J. L., Camilla, Ga.  
 Garrett, J. A., Baconton, Ga.  
 Lewis, F. L., Camilla, Ga.  
 Roles, C. L., Camilla, Ga.  
 Rainey, C. O., Camilla, Ga.  
 Spence, J. M., Camilla, Ga.  
 Stevenson, C. A., Camilla, Ga.

**MONROE COUNTY.****Officers.**

President ..... Williams, G. W.  
 Vice-President ..... Smith, B. F.  
 Secretary ..... Smith, W. J.  
 Delegate .....

**Members.**

Alexander, G. L., Forsyth, Ga.  
 Elrod, J. O., Forsyth, Ga.  
 Goolsby, R. C., Forsyth, Ga.  
 Goolsby, Cullen, Forsyth, Ga.  
 Ponder, W. P., (Honorary) Forsyth, Ga.  
 Smith, B. F., Forsyth, Ga. Rt. 1.  
 Smith, W. J., Juliette, Ga.  
 Torbett, R. C., Culloden, Ga.  
 Wright, J. J. C., Culloden, Ga.  
 Williams, G. W., Forsyth, Ga.

**MUSCOGEE COUNTY.****Officers.**

President ..... Cosby, Sr., F. L.  
 Secretary-Treasurer ..... Jordan, W. P.

**Members.**

Anderson, J. M., Columbus, Ga.  
 Allen, B. W., Columbus, Ga.  
 Baird, J. M., Columbus, Ga.  
 Baker, E. T., Columbus, Ga.  
 Brooks, R. F., Columbus, Ga.  
 Brooks, H. W., Geneva, Ga.  
 Blanchard, Mercer, Columbus, Ga.  
 Campbell, W. H., Columbus, Ga.  
 Carter, C. B., Columbus, Ga.  
 Cook, W. L., Columbus, Ga.  
 Cosby, F. L., Columbus, Ga.  
 Cosby, Jr., F. L., Columbus, Ga.  
 Darby, J. I., Columbus, Ga.  
 Dexter, C. A., Columbus, Ga.  
 Gattier, W. L., Columbus, Ga.  
 Jones, P. T., Columbus, Ga.  
 Jordan, W. P., Columbus, Ga.  
 Johnson, J. H., Columbus, Ga.  
 Johnson, R. F., Columbus, Ga.  
 Jameson, B. B., Columbus, Ga.  
 Mitchell, T. E., Columbus, Ga.  
 Moncrief, J. T., Columbus, Ga.  
 Murray, G. S., Columbus, Ga.  
 Odom, F. J., Geneva, Ga.  
 Peacock, C. A., Columbus, Ga.  
 Pennington, M. F., Columbus, Ga.  
 Tatum, P. A., Columbus, Ga.  
 Tucker, O. B., Columbus, Ga.  
 Whitehead, W. F., Columbus, Ga.  
 Youmans, J. R., Columbus, Ga.  
 Young, S. E., Midland, Ga.

**McDUFFIE COUNTY.****Officers.**

President ..... Gibson, S.  
 Secretary ..... Riley, Jr., B. F.  
 Delegate ..... Story, Z. M.

**Members.**

Freeman, William, Thomson, Ga.  
 Gibson, Sterling, Thomson, Ga.  
 Gibson, W. A., Thomson, Ga.  
 Riley, Jr., B. F., Thomson, Ga.

**NEWTON COUNTY.****Officers.**

Secretary ..... Randle, J. H.

**Members.**

Loveless, J. C., Porterdale, Ga.  
 Randle, J. H., Covington, Ga.  
 Sams, J. R., Covington, Ga., R. F. D. 8.

Travis, W. D., Covington, Ga.

Waites, S. L., Covington, Ga.

**OCMULGEE COUNTY.****Officers.**

Secretary ..... Pirkle, W. H.

**Members.**

Brown, E. C., Hawkinsville, Ga.  
 Carroll, K. A., Hawkinsville, Ga.  
 Hendricks, J. H., Hawkinsville, Ga.  
 Mathews, W. A., Hawkinsville, Ga.  
 Mathews, J. L., Hawkinsville, Ga.  
 Pirkle, W. H., Cochran, Ga.  
 Smith, A. A., Hawkinsville, Ga.  
 Smith, A. L., Cochran, Ga.  
 Stone, J. J., Hawkinsville, Ga.  
 Whipple, R. L., Cochran, Ga.  
 Williams, W. C., Cochran, Ga.

**PIKE COUNTY.****Officers.**

President ..... Head, M. M.  
 Vice-President ..... Mallory, R. A.  
 Secretary ..... Anderson, J. M.  
 Delegate ..... Corry, J. A.

**Members.**

Anderson, J. M., Barnesville, Ga.  
 Barron, J. M. F., Milner, Ga. R. F. D.  
 Bramblett, J. C., Meansville, Ga.  
 Beauchamp, J. C., Williamson, Ga.  
 Corry, J. A., Barnesville, Ga.  
 Cochran, M. F., Barnesville, Ga.  
 Grubbs, J. H., Concord, Ga.  
 Graves, J. R., Zebulon, Ga.  
 Head, D. L., Concord, Ga.  
 Head, M. M., Zebulon, Ga.  
 Howard, I. B., Williamson, Ga.  
 Huckaby, A. H., Milner, Ga.  
 Mallory, R. A., Concord, Ga.  
 Prichett, D. W., Barnesville, Ga.  
 Rogers, J. M., Barnesville, Ga.  
 Suggs, C. E., Barnesville, Ga.  
 Willis, C. H., Barnesville, Ga.

**POLK COUNTY.****Officers.**

Secretary ..... Tison, W. W.

**Members.**

McBride, T. E., Rockmart, Ga.  
 Peek, C. W., Cedartown, Ga., R. F. D.  
 Tison, W. W., Cedartown, Ga.

**PUTNAM COUNTY.****Officers.**

President ..... Taliaferre, V. H.  
 Vice-President ..... Griffith, E. F.  
 Secretary ..... Clark, S. A.  
 Delegate ..... Griffith, E. F.

**Members.**

Clarke, S. A., Eatonton, Ga.  
 Griffith, E. F., Eatonton, Ga.  
 Ledbetter, John, Eatonton, Ga.  
 Taliaferre, V. H., Eatonton, Ga.  
 Walker, E. H., Willard, Ga.

**RANDOLPH COUNTY.****Officers.**

President ..... Patterson, F. D.  
 Vice-President .... McCurdy, E. C.  
 Secretary ..... Moore, G. H.  
 Delegate ..... Martin, F. M.

**Members.**

Andrews, T. C., Cuthbert, Ga.  
 Binion, W. W., Benevolence, Ga.  
 Bugg, L. R., Carnegie, Ga.  
 Crittendon, A. L., Shellman, Ga.  
 Crook, W. W., Cuthbert, Ga.  
 Gary, Loren, Georgetown, Ga.  
 Harper, T. F., Coleman, Ga.  
 Ingram, H. R., Coleman, Ga.  
 Martin, F. M., Cuthbert, Ga.  
 Moore, G. Y., Cuthbert, Ga.  
 McCurdy, E. C., Shellman, Ga.  
 Patterson, F. D., Cuthbert, Ga.  
 Patterson, J. C., Cuthbert, Ga.  
 Rogers, F. S., Coleman, Ga.  
 Rogers, W. F., Coleman, Ga.  
 Tanner, J. B., Benevolence, Ga.  
 Weathers, A. F., Shellman, Ga.

**RICHMOND COUNTY.****Officers.**

President ..... Lewis, J. J.  
 Vice-President ..... Michel, H. M.  
 Secretary ..... Robertson, J. R.  
 Delegates ..... Crane, C. W.  
 Coleman, Thos.  
 Wilcox, E. A.

**Members.**

Armstrong, R. M., Augusta, Ga.  
 Akerman, Jos., Augusta, Ga.  
 Baker, H. J., Augusta, Ga.  
 Battey, W. W., Augusta, Ga.  
 Bernard, G. T., Augusta, Ga.  
 Blanchard, C. A., Augusta, Ga.  
 Bryans, C. I., Augusta, Ga.  
 Bryson, R. I., Augusta, Ga.  
 Burdshaw, J. F., Augusta, Ga.  
 Caldwell, J. M., Augusta, Ga.  
 Coleman, T. D., Augusta, Ga.  
 Comey, P. P., Augusta, Ga.  
 Crane, C. W., Augusta, Ga.  
 Cranston, W. J., Augusta, Ga.  
 Davison, A. A., Augusta, Ga.  
 Deas, A. J., Augusta, Ga.  
 Daughy, W. H., Augusta, Ga.  
 Eve, H. J., Augusta, Ga.  
 Goodrich, W. H., Augusta, Ga.  
 Hull, J. M., Augusta, Ga.  
 Hull, Asbury, Augusta, Ga.  
 Houston, W. R., Augusta, Ga.  
 Houser, L. G., Augusta, Ga.  
 Horne, G. T., Augusta, Ga.  
 Hankinson, S. H., Augusta, Ga.  
 Jennings, W. D., Augusta, Ga.  
 Kilpatrick, A. J., Augusta, Ga.  
 Kellogg, W. C., Augusta, Ga.  
 Kershaw, M. M., Augusta, Ga.  
 Lewis, S. J., Augusta, Ga.  
 Lichtenstein, Samuel, Augusta, Ga.  
 Levy, M. S., Augusta, Ga.  
 Lamar, R. V., Augusta, Ga.  
 Mulherin, F. X., Augusta, Ga.  
 Mountain, G. W., Augusta, Ga.  
 Moore, N. M., Augusta, Ga.  
 Milligan, K. W., Augusta, Ga.  
 Montgomery, C. W., Augusta, Ga.  
 Murphy, E. E., Augusta, Ga.  
 Oertel, T. E., Augusta, Ga.

Page, H. N., Augusta, Ga.  
 Roberts, W. H., Augusta, Ga.  
 Rice, E. P., Augusta, Ga.  
 Robertson, J. R., Augusta, Ga.  
 Rhodes, R. L., Augusta, Ga.  
 Shaw, H. W., Augusta, Ga.  
 Scharnitzky, E. O., Augusta, Ga.  
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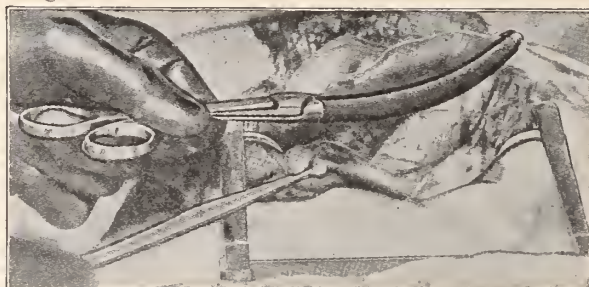
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### ORIGINAL ARTICLES

#### MEDICAL ASPECTS OF SURGICAL CASES.

William Howard Lewis, M. D., Rome, Ga.

The great advance of industry in this country in the last quarter of a century has been due largely to the assembly under one management of many separate units of related processes and the correlating and concentrating of their energies to secure a more highly developed and extensive and economical production. Business recognized that small units vigorously competing, usually antagonistic and often duplicating, were a waste of brains and material, were unscientific, and not economically profitable to the individual nor to the community. As a result the great plants and organizations today, self contained and all comprehensive, including within their precincts numerous divisions of industry which at one time would have been regarded as distinct efforts.

During the same era of industrial development we have seen medicine dividing into many sections or specialties, each drifting into its own channels and too often the exponents of one branch looked upon themselves as only remotely associated with the others. True, such keen specialization has led to the rapid development of science and knowledge along particular lines which might not have been attained as promptly nor as effectively had they all remained in the original fold. However, when carried too far from the parent stem disadvantages have appeared which seriously impair the merit and functioning of the system not only from the viewpoint of physical convenience to the patient but particularly in

rendering a comprehensive and well balanced judgment by the profession. It is impossible for one intellect to be proficient in all the branches of medicine and it is essential for a certain number to be expert in each division. There is however no excuse for such an expert not to have a reasonable knowledge of the possibilities and fundamentals of the other branches that he may recognize the indications for their advice and co-operation.

With the complexity of modern diagnostic methods the day of snap diagnoses, the trump card of the spectacular physician, is past. Such diagnoses were usually the result of sublime ignorance of the potentialities of a given case and were associated with inexperience and superficial knowledge. True a medical diagnosis may still be flippantly declared with little fear of disillusion save by the all too rare autopsy, but a diagnosis made against the event of surgery is conducive to cautious consideration. Before the days of laboratories, technical examinations and frequent surgery, diagnosis was largely a matter of pure opinion, a quality in which one man might be as proficient as another and the extent of a professional reputation was more or less in direct ratio to the positiveness with which a physician published his deductions. Today opinion must be based upon and fortified by facts and demonstrable data not easily confuted, with as little as possible left to conjecture.

Perhaps in no two fields is there greater need of close association than in the major ones of medicine and surgery. English law established a court of twelve men to sit upon the affairs for its consideration, not feeling it safe to trust material things to the judgment of one man, however wise. But almost every physician and surgeon has considered himself competent to pass upon

all the problems of his patients without the assistance of a colleague. Many have even regarded it as a kind of treason or sacrilege if additional advice be suggested and it is undoubtedly true that the scepticism in which our profession is held by a large part of the laity is due to this lack of intelligent co-operation or cohesion among our members.

There are three distinct phases where the medical mind should be of material advantage to the surgeon. First in assisting to establish a diagnosis. Second in differentiating between and evaluating the relative weights of coexistent medical and surgical conditions in a given case and third in co-operating during the convalescence and ultimate restoration to health.

Aside from the fact that two heads are better than one we must admit that the medical mind and the surgical mind are very prone to consider different aspects of a case, to stress different symptoms and develop different view points. The perfect physician and the perfect surgeon would of course coincide exactly in all these features but in practice they do not and in just this divergence lies the value to the patient in developing all possible angles to his case.

In reaching a decision every medical factor should be considered as in the last analysis surgery is too frequently the result, possibly inevitably, of unsuccessful medicine. What bearing upon the situation has the nervous system, not alone of organic diseases but of functional? What type of nervous system has the patient? What are his reactions and mental attitudes? What weight is to be placed upon his subjective sensations, deductions, and personal idiosyncracies? What is the status of his respiratory and circulatory machinery? Will features in these alter or modify the surgical factor or risk? Is there an underlying or associated constitutional disease? If infection is present, is it primary or secondary? What are its points of origin and what are its metastases? To what extent are other organs involved? What is the exact status of the kidneys, the probability of their involvement and capacity for overload? Per-

haps more important than all, how great is the possibility of disease in one structure simulating the masking disease in another? How much has a local surgical trouble affected the entire mechanism and after that condition has been eliminated by the surgeon, what remaining factors will have to be combatted by the physician?

Before a well grounded surgical opinion can be rendered all these problems should be solved, and, as many of them are largely if not entirely medical; they can best be attained by the complete co-operation and discussion by the physician and surgeon. Each will develop some illuminating aspects of the case and the play of mind upon mind will be mutually educational.

The diagnosis arrived at and the operation completed how many details making for comfort and recovery can be suggested by the physician? Constant guard against complications, cardiac, pulmonary and renal; attention to blood pressure and circulation; and, the general care which makes so much for a happy convalescence. Objection may be made that this is the function of the surgeon. True it should be, but how often does he accomplish it? After an appendix or gall bladder is once out, or a gastroenterostomy is done, how often does the operator feel that his task is over? With the assurance of a speedy return to health the patient is dismissed with little regard for his future conduct or regulation of his activities. He may have had a secondary anaemia, a myocardial insufficiency, a defective digestion, or a functional nervous disturbance. Renal damage may demand observation, or pernicious mental habits need direction.

Without the recognition or the proper evaluation of the medical aspects of a surgical case and the appropriate presentation of these to the patient himself, the latter too often assumes too great results from surgery. The most skillful operator may thus, often more or less justly, fall into disrepute. Without attention to one or several of these associated conditions, the patient may be left to struggle through a handicapped convalescence and ends frequently by damning the surgeon for an unsuccessful operation which he was as-

sured would cure all his ills; or, else, he braves it through to a reasonable recovery which might have been more speedy and complete had he been accorded intelligent direction for his post-operative career.

Such problems can only be solved by the physician and the surgeon seeing all cases and reviewing together all data on each case. Their attitude must be that of co-operation and not of antagonism. It is perfectly possible to distinguish between the medical and surgical aspects, or both, of a given case and not to insist that a case is absolutely medical or essentially surgical. The internist who dictates from his desk that all stomach troubles are medical is looking down the little rain pipe of his specialty and ignoring demonstrated facts. A stomach tube is a valuable tool but was never intended as an instrument of vision, although, it has obstructed the view of many men who have observed gastric disease only through its limited lumen. Equally petty is the surgeon who has not yet appreciated that every type of feminine ill may not be obliterated via the laparotomy or repair route, and that constitutional and psychological factors can not be banished by purely operative measures.

The physician gains much from close association with the surgeon securing at the operating table all the valuable lessons which have formally been accessible only at the autopsy. He learns caution and discretion and is inclined to cultivate the same conservative judgment toward his non surgical cases. He acquires a first hand knowledge of living pathology and an instant check upon his mistakes. The surgeon in turn secures a more rounded appreciation of his cases, a more detailed insight into general conditions and a feeling of greater confidence in the performance of his work. The advantages to the patient are obvious.

Medicine and surgery are integral portions of the same science and art. They can not be distinguished, and for practical and just accounting to the patient, as well as for the intelligent functioning of both services, they must be sympathetically and systematically merged. This must be upon a basis of mutual advantage and fullest confidence, not

of rivalry or suspicion. We must take a page from industry and organize and consolidate. The progress of medicine today lies in the distribution to our clientele of the products of the manifold accomplishments of the recent past, and the developments of the future. The results of research and progress are of little avail, if they are not accessible to the vast bulk of the public which stand so urgently in need of the best. This is the duty which devolves upon our profession today and is a task which can not be attained by any one individual with credit either to himself or his calling. We must systematize our art and organize the application of our science, else we are like Archimedes, possessing the theory, but lacking the tools wherewith to move the world.

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#### LOCAL ANAESTHESIA IN GALL BLADDER SURGERY.

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W. A. Selman, M. D., Atlanta, Ga.

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In considering surgical conditions of the abdomen, the ever present question of the anaesthetic is one to come in for its consideration. If one type of anaesthetic can be used whereby the surgeon can do his work equally as well and the patient suffer less shock and be in better condition afterwards, then such an anaesthetic is a real aid to surgery.

This requirement I believe to be met by local anaesthesia, either alone or in combination with some other anaesthetic. No one anaesthetic is suitable for all kinds of operations, but by carefully selecting the most suitable one, or the most suitable combination of more than one, there is no question that the mortality statistics can be lowered. It is not a reflection on a surgeon to attempt an operation under one anaesthetic and have to employ another before he finishes, but rather an evidence that he is doing all possible for the relief of his patient with the least possible hazard, taking into account the already existing pathology. It would be a reflection to start with one kind and not be prepared to change to another if necessary.



In discussing local anaesthesia in reference to gall bladder surgery, after reviewing a few points of technique, I desire to report a few cases.

In the first place the preparation of the patient is of prime importance. This begins with securing the confidence of the patient and is enhanced by assurances that his own feelings will be considered throughout the operation. A preliminary hypo of morphine grs. 1/6 to 1/4 with scopolamine grs. 1/150 one half hour before time for operation and, if indicated, another 1/6 or 1/4 gr. of morphine immediately beforehand. Frequently this is sufficient to produce a quiet sleep that lasts entirely through a cholecystotomy or cholecystectomy. After the preparation of the field of operation, usually with tincture of iodine and alcohol equal parts, the intradermal injection of 1/2% novocaine is made the entire length of the proposed incision. Next the subcuticular tissue is infiltrated. By this time an incision down to the muscular sheath can be made painlessly. Again the novocaine solution is injected underneath the sheath, as well as into the underlying muscles. By using a sharp knife, and with gentleness of manipulation ever uppermost in your mind, the sheath is incised and muscular fibres divided to the transversalis fascia and parietal peritoneum. With a fine needle this too is infiltrated, and to a considerable distance laterally, to produce that laxity of the peritoneum so desirable in closing the upper abdomen. If the preceding steps are done painlessly, on opening the peritoneum the abdominal viscera will not be straining to bulge out, but will actually recede. Now with gentle traction the liver should be in view, and with such a landmark one usually locates the gall bladder with ease. If there are no adhesions it is a very simple matter to either drain it or remove it, for it has no sense of pain whatever, and so long as it is not pulled upon, the patient shows no evidence of discomfort. However, if dense adhesions be present, or if stones be impacted tightly either in the gall bladder itself or any of its ducts, it is quite a different matter, for pulling on the ducts or adhesions to the adjacent struc-

tures, causes intense pain, and the more acute the inflammation the greater the pain. At this point a continuation under a local anaesthetic alone causes the patient to complain, then to strain, and further work especially about the ducts is impractical. Here is where a general anaesthetic must come to our aid if we do thorough work. For this I consider gas-oxygen the one of choice, for it acts quickly, usually without nausea or shock, and can be discontinued immediately when the trauma is over, and the rest of the operation, as drainage and closure can be done under the infiltration analgesia that is already present. It is gratifying to see with what ease the peritoneal layers come together, and in fact how all the tissues come together without frayed edges and without tension.

As local analgesia work is of necessity, careful and painstaking, attention to minor details is of importance. For instance, for intradermal injection fine sharp needles, and for all work sharp knives, add greatly to the patient's comfort. Three or four drops of adrenalin chloride added to the novocaine solution after the latter has been boiled and allowed to cool somewhat, prolongs the analgesia for more than an hour, and lessens the capillary oozing. Of importance also is the fact that unless the anaesthetic solution is made of normal saline or some isotonic solution with the blood, there may be considerable damage to tissue from the infiltration, and healing be impaired. Experimentally, novocaine in such a solution is no more irritating than normal saline.

In conclusion, I wish to say that I try not to be a "faddist," but when I see such gratifying results in even poor surgical risks with no extra strain put upon the heart, no irritation of the mucus membrane lining the air passages, no toxemia burdening the excretory organs, and no nausea and vomiting for hours afterwards; I do not hesitate to say that with the many surgical advances made in recent years, that of local anaesthesia is not the least.

#### REPORT OF CASES.

##### Case No. 1.

Mrs. J. W. B.

Female. Age 69. Family history unimportant.

Present trouble began two months ago with general debility and loss of appetite. She was treated for intestinal toxemia and was put on tonic and eliminative treatment. Failing to improve, her physician suggested calling in a surgeon. I was called and on examination found tenderness over the gall bladder region. She was not decidedly jaundiced at this time, but sallow and pale. We decided to do an exploratory laparotomy over the gall bladder for removing probable stones. Consequently on September 9th, 1919, she was removed to the Davis-Fischer Sanatorium and with Dr. L. P. Daly assisting, under a preliminary morphopolamine narcotization, and with novocaine 1/2% we opened the abdomen. The gall bladder was considerably enlarged and 59 stones varying in size from a pea to a medium size marble were removed. These were removed without complaint from the patient and the cystic and common ducts palpated. A rubber tube drain was inserted and the abdomen closed. For ten days convalescence was satisfactory when increasing jaundice set in. Dr. S. T. Barnett was called in consultation, and advised a secondary exploration of the ducts for stone. This was done, as primarily, under novocaine and a satisfactory exploration made. A small faceted stone was found in the gall bladder, but none in the ducts. However, nodules were studded tightly about the ducts and on the surface of the liver. One gland removed for pathological examination proved to be malignant. She was removed to her home and died November 4th, 1919, one month after the second operation.

Case No. 2. Mrs. C. L. Female. Age 71. On December 21st, 1919, was seized with acute pain in upper abdomen accompanied by nausea and vomiting. On examination she was exceedingly tender over the gall bladder region. There was a large ventral hernia the size of a grape fruit above the umbilicus which dated from the birth of a child some thirty-five years previously. This was easily reducible and apparently did not

enter into the acute condition. An immediate operation was advised, and though her family physician had advised against an operation for her hernia on account of a cardiac insufficiency, she readily consented to any effort to relieve her of the acute pain. She was removed to St. Joseph's Infirmary and Dr. Huguley and I operated under novocaine locally. Several large gall stones were removed, and quite a quantity of pus evacuated. Drainage was inserted, and she made a satisfactory recovery.

(For reporting this case I am indebted to Dr. G. P. Huguley who was associated with me throughout.)

Case No. 3. Mrs. B. P. Age 64.

This patient was referred to me by Dr. W. K. Burnett, of Winston, Ga., with the history of having had repeated attacks of what he diagnosed gall bladder colic and indigestion extending over a period of 15 or 20 years. Her skin had a slight yellowish tinge but no decided jaundice, nor did she remember ever having had any. On May 8th, 1919, she entered the Georgia Baptist Hospital, and on the following morning under a local anaesthetic, 179 gall stones were removed from her gall bladder. She made an uneventful recovery.

On March 21st, 1920, she returned, suffering constant pain in the gall bladder region. A second exploration under local anaesthesia revealed an especially hard, contracted gall bladder which I took to be mostly scar tissue. A cholecystectomy was done but no pathological examination of the tissue was made. The pain was better for a short time but again returned. A bulging of the tissue about the scar indicated that a malignancy had developed, and a small piece of tissue removed on April 21st proved to be carcinoma.

Case No. 4. Mrs. J. H. Age 38.

On April 6th, 1920, I was called by Dr. Geo. N. Niles, of Atlanta, and Dr. John M. Poer of West Point, Ga., to see some X ray plates taken by Dr. Niles.

The picture shows an opacity in the gall bladder region, but no definite shadow of stones. The patient was convalescing from a definite attack of cholecystitis that had

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occurred ten days previously, at which time she was jaundiced and presented other classical symptoms of gall bladder obstruction. For several years past she had suffered from indigestion and more or less pain in her right hypochondriac region. She was considerably emaciated on account of a lack of appetite and on account of pain after eating. Her case was further complicated by a nephritis, which according to Dr. Poer had extended over a period of several years.

On physical examination a small mass could be felt in the gall bladder region that would move slightly on deep respiration. On the following day a cholecystectomy was done under local anaesthesia. A very thick walled gall bladder was found, but no stones. It was interesting to note that the gall bladder and its attachment to the liver caused no pain on its removal through no local anaesthetic was used after the abdomen was opened. After a double ligature of the cystic duct, the gall bladder was removed and a small cigarette drain inserted down to the stump of the cystic duct. This was removed the third day. On the eighth day after operation, there having been no abdominal distension or any elevation of temperature, I removed the silk worm gut sutures, and also the skin sutures of silk. That night after taking a glass of soda water for a full feeling in her stomach after enjoying an increase in her diet, she wretched and vomited. The next morning the nurse called my attention to a little blood on the dressing, and we found the wound gaping in its entire length. She was taken to the operating room and under gas oxygen anaesthesia she was closed in layers again. Fortunately, no infection resulted and on the eleventh day following the stitches were removed. Healing was good and her recovery complete.

Mrs. E. O. Ref. by Dr. C. R. Adams. White. Female. Age 46.

This patient gave a typical history of recurrent attacks of cholecystitis, and had been repeatedly advised by her physician to be operated upon for that trouble. I was called to see her February 19th, 1920, and advised an operation. She was sent to the Georgia Baptist Hospital, and under novocaine anaesthesia the gall bladder was exposed and opened. It contained five large stones so tightly impacted that any attempt to remove them was painful. Gas oxygen was then administered and the gall bladder was emptied and drained and the appendix removed. Convalescence was satisfactory and she returned home after two weeks.

Case No. 6, Dr. R. B. D.

Dr. D. was admitted to Wesley Memorial Hospital on October 7th, 1919, with about the following history:

Ten days previously he was taken with pain in the right hypochondriac region and his temperature gradually increased until it reached 103 degrees daily but at no particular time of day. He being a physician had prescribed and taken quantities of quinine and calomel but with no relief. He complained of pain in the Rt. Mastoid region. Dr. E. D. Crawford was called and after an examination, said there was no evidence of middle ear trouble. Dr. F. W. McRae was called in consultation, and advised hot stupes to gall bladder region, and await developments. A blood examination by Dr. E. C. Thrash showed a negative culture for typhoid, a negative stain for malaria and a leukocytosis. On October 10th Dr. W. P. Nicolson was called in consultation and advised a cholecystotomy. This was done under novocaine, and a tense gall bladder full of thick, tarry bile was drained. An immediate cessation of symptoms begun and a speedy recovery followed.

428 Candler Building.

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### THE ROLE PLAYED BY THE EMOTIONS IN THE ETIOLOGY OF FUNCTIONAL NERVOUS DISEASES AND DEMENTIA PRAECOX.

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Newdigate M. Owensby, M. D., Atlanta, Ga.

The close association of the changes observed in the viscera and the emotions has arrested the attention of all ages and various attempts at scientific explanation, varying with the physiology of the period, were advanced in explanation of this phenomena. In the beginning all attempts were directed towards locating the emotions in



the various viscera and this theory enjoyed an overwhelming preponderance until Unzer and John Hunter formulated a psychophysiological law to advance their cerebral theory. Since that time the cerebral theory became accentuated by the writings of Muller, Laycock, Gall, Charles Bell, Darwin, Spencer, Romberg, Tuke, and others until the present day when no one maintains that the viscera is the seat of an emotion.

Despite the modern acceptance of the cerebral theory of emotions, there is, however, a divergence of opinion among psychologists as to the cause and effect of these emotions. The James theory, which has been generally accepted, contends that the bodily manifestations must first be interposed and the rational way of explaining an emotion is that the emotion is the result of a physical act, i. e., we are angry because we strike, afraid because we tremble, sorry because we cry, etc. McDougall states that "the propriety of distinguishing between the conative element in consciousness, the impulse, appetite, desire, or aversion, and the accompanying emotion is not so obvious." Kroner claims that the emotions depend not only on physiological but still more intimately on the chemical action going on in the tissues and fluids of the organism." Ribot thinks that "the brain is not merely the echo of the internal sensations; it receives and reacts according to its disposition; it centralizes, but while taking its own part in the concert; it puts its mark on the impressions it receives."

Clinical evidence would lead us to believe that the visceral changes are the result of the emotion rather than the emotions being the result of the visceral changes. Mosso's observations on the changes in the cerebral circulation in his three patients when frightened, disappointed, and embarrassed. Beaumont's observations on the changes taking place in his patients' stomach as a result of anger and other strong emotions. Pavlov's experiments on the effect produced by the emotions on the gastric secretions of a dog. All of which are evidence of the effect produced on the bodily organs as a result of emotion. Again the connection of the emo-

tions with quickened heart beats, rapid respiration, frequent urination, diarrhoea, vomiting, perspiration, pupillary changes, flushing or paling of the skin, has long been a matter of common observation.

This clinical evidence is not sufficient to change the opinion of the psychologist, however, although James admits that the natural way of thinking "is that the mental perception of some facts excites the mental affection called the emotion, and this latter state of mind gives rise to bodily expression," and again he states "that is what common sense tells us." In the face of this he still maintains that the emotions are the result of bodily changes. Woodworth, in a recent publication, states that "this view of the emotions is still to be regarded as a hypothesis deserving careful consideration rather than an accepted conclusion."

The apparent paradox of the James theory of the emotions is doubtless due to the fact that at the time of its conception we had a very limited knowledge of the endocrines and did not know that all the bodily manifestations of the emotions or repressed emotions could be produced by their secretions. Had he been aware of this at that time James might have followed the natural way of thinking and stated that the mental perception of some fact excites the mental affection called the emotion, and this latter state of mind, acting reflexly through the sympathetic nervous system on the endocrines gives rise to the bodily expression. A careful comparison of the physiological action of the various glandular secretions with the physical manifestations accompanying the different emotions is sufficient to convince one that "it is what common sense tells us."

The visceral changes observed in the various emotions have been graphically recorded and measured by instruments of precision by so many investigators that they have been accepted as established facts. It has only been in very recent years though that attempts have been made to investigate the changes in the glandular secretions following the emotions. Cannon and his co-workers were among the first to observe and demonstrate these changes by their experi-

ments made on cats. He noted that small amounts of adrenalin is poured into the circulation of the cat under influence of fear and anger, and called attention to the fact that "when a cat became frightened, the pupils dilate, the heart becomes rapid, the hairs of the back and tail stand erect—all of which could have been produced by adrenalin." Again he called attention to the fact that "the persistence of the emotional state after the exciting object has disappeared, can be explained by the persistence of adrenalin in the blood." It is obvious that if the emotion will cause the pouring of adrenalin into the blood, it can also cause the pouring of any other glandular secretion into the blood stream and that the effects will persist for a time after the cause for the emotion has disappeared. Should there be more than one gland involved there will be manifestations characteristic of each gland, unless one becomes so obtrusive as to appear the predominant feature and mask the others. The emotion not only consists of a psychical element but also includes a large syndrome of physiological processes, but no matter what the other visceral changes may be or how obtrusive they are, the endocrine symptoms are always present.

The Hess-Eppinger theory of Vagotonia would at first appear to cover this but in their zealousness to attribute everything to the Autonomic or sympathetic nervous system they fail to consider the emotions as primarily responsible for these changes. Thus, for example, they claim that the sympathetic dilates the pupil, causes the eyeballs to protrude, accelerates the heart's action, and produces glycosuria and polyuria. All this could be, and doubtless is, produced by a thyroid-adrenalin syndrome as a result of an emotional disturbance acting reflexly through the sympathetic system on these glands. In cretins it will be noted that emotional disturbance or physical manifestations of emotional disturbance is seldom noted unless due to alterations of other glands than the thyroid.

The psychopathological school contends that all manifestations of the neuroses and psychoneuroses are due to repressed emotions

and fail to take into consideration the endocrines. It is true that when the emotion responsible for the various manifestations is released there is a subsidence of the symptoms, but this is due to the fact that the sympathetic nervous system ceases to act upon the endocrines. When the emotion persists or is repressed for a considerable length of time there will be a constant cerebral irritation due to the outpouring of the glandular secretion in the blood stream and a psychosis may develop as a result of the concomitant vicious circle, unless, however, the emotion has caused a hypo rather than a hyper or altered secretion of the glands.

For a number of years there has been a tendency to ascribe the origin of Dementia Praecox to a perversion of the secretion of the ductless glands, and recently Fauser, working with the Abderhalden technique, has isolated some defensive ferments. Meyer thinks the disease due to continued unhealthy biological reactions. None of the theories thus far advanced as to the cause of the malady have proven entirely satisfactory, and must only be regarded as hypotheses. In my opinion the disease is the result of a long continued emotional disturbance acting reflexly through the sympathetic nervous system on the ductless glands and most frequently the thyroid. That when the disease is in its earliest stages it can be cured by releasing the emotion, and when this cannot be done, a partial thyroidectomy will cause the symptoms to ameliorate. When the disease is advanced and there has been cellular changes in the cerebrum as the result of a long continued irritation produced by glandular secretions, the prognosis is gloomy.

Until more accurate physiochemical examinations of the blood are possible, this theory can only be substantiated clinically.

Two cases which have come under my observation within the past ten months may serve to illustrate the effect of a repressed emotion upon the mental health of an individual, therefore I shall very briefly summarize them.

Case No. 1. White girl, age 20 yrs. Occupation, telephone operator. Fam. History. Negative. Past History. Usual diseases of

childhood. No other illness of any consequence. Present illness. Has been depressed for the past six months and had to give up her position three months ago. Since then has become more listless, psycho-motor retardation gradually becoming more marked, cerebration slow, questions have to be repeated several times before monosyllabic replies can be elicited, forgetful, given to meaningless laughter, indifferent to friends and relatives, negativism becoming very pronounced, skin thickened, hyperhidrosis of hands and feet, purple splotches over fore arms, dermatographia marked, slight tachycardia, thyroid normal in size. Psychoanalytical examination brought out the fact that she had been a masturbator since childhood. Seven months ago she read a book extolling the dangers to the health and mind resulting from masturbation. Shortly thereafter she attended a lecture for "women only" in which the dangers of masturbation were pictured very vividly, as well as the sin committed. She became frightened and since that time has worried constantly over her transgression. After a thorough discussion of her habit and being informed that its dangers were not so severe as she had been lead to believe, the symptoms rapidly disappeared.

Case No. 2. White girl, age 17 years. Occupation, sales girl. Referred by the Red Cross to the Neuropsychiatric clinic of Atlanta. History given by Red Cross visitor. Fam. His. Father, two sisters and one brother insane. Past His. Usual diseases of childhood. No other ills. Began work some three years before and has changed positions several times within the past twelve months. Recently has begun going out at night and would remain until after midnight. Upon her return would not give her mother any explanation for her conduct or state where she had been. Mother thinks that she has become immoral. Given to silly laughter without apparent cause. Gave up her position three months ago because she felt queer all the time. Spent most of her time in her room sitting in a chair and apparently thinking. Her disposition has changed from a cheerful to a morose one. Replied to all questions in mon-

osyllables until about a week ago when she became mute. Her features had a pinched appearance and the skin was leathery. Negativism was marked. The thyroid was slightly larger than normal. The patient was referred to Grady Hospital and Dr. Frank Boland removed the left lobe of the thyroid. Upon regaining consciousness from the anaesthetic her mental condition was normal and has remained so. Since the operation the patient states that she has been a masturbator for several years and that before the above symptoms appeared she was informed that masturbation caused insanity and that she has worried constantly since.

The fact that both cases cited above were given to masturbation may perhaps lead some to the opinion that was the cause of the mental manifestations, but since there were no evidence of any symptoms until the patients were frightened, I am forced to believe the emotion responsible. In all cases of Dementia Praecox the emotional disturbance is the first symptom noted and is followed by changes in disposition, personality, and subsequent mental manifestations. In nearly all cases the patients are looked upon as model children and very conscientious in temperament before the disease appeared. Many of them are deeply religious and retiring in disposition. All are prone to keep their worries and troubles to themselves, and to repress any emotional disturbance. If emotional disturbances affect the endocrine metabolism, they are the type of persons in which it would be most likely to occur. Again the symptoms noted in the above cases are those of a Thyroid-gonadal-adrenalin syndrome, with the thyroidal symptoms predominating.

#### Conclusions:

1. Functional Nervous diseases and Dementia Praecox are due to emotional disturbance or repressed emotional disturbance acting reflexly through the sympathetic nervous system on the endocrines.
2. The tolerance of glandular secretions vary in each individual, and upon their tolerance will depend the severity of the symptoms manifested.
3. Persons reared in an environment con-



ductive to the development of emotional disturbances are more susceptible to the neuroses and psychoses.

4. In each emotional disturbance there are symptoms of disturbed endocrine metabolism which persist for a time after the cause for the emotion is released.

5. When the emotional disturbance has been released in the neuroses and the very earliest cases of Dementia Praecox there is a rapid subsidence of the symptoms.

6. Partial thyroidectomy (lobectomy) should be performed only in those cases where cellular changes have not taken place in the brain. In these cases the wound should be thoroughly drained and the drain changed every eight hours during the first forty-eight hours, and once every twelve hours for the next sixty-four hours. Otherwise there will be a return of mental symptoms or acute thyroid poisoning due to absorption.

7. Operations should never be performed on the thyroid when the symptoms show other glands predominating.

709-12 Peters Building.

### **SYMPTOMS AND TREATMENT OF DEHYDRATION OF TISSUE OCCURRING IN DISEASES OF INFANCY AND CHILDHOOD.**

By F. X. Mulherin, M. D., Augusta, Ga.

In health, the fluid of the tissues of infants and young children are well cared for in the foods suitable to their age. In the summer months even the natural attendants of these young individuals recognize the necessity of offering water frequently to their charges, to make up for the additional fluid loss from the body.

In conditions of disease accompanied by excessive loss of fluids, such as the diarrheas, and fevers, the natural method of supplying water by mouth is often inadequate to maintain the normal fluid content in the tissues, and a condition of dehydration results. This is the only explanation possible to account for the great loss in weight we have all encountered in severe cases of these

types. The loss of fluid is far in excess of the amount supplied, and the tissues and blood suffer accordingly.

Marriott has shown that the blood plasma of infants suffering from this condition was invariably greatly concentrated, causing a decrease in blood volume. In other words, an anhydremia, or desiccation. This in turn led to a diminished volume-flow of the blood, which might in extreme cases be as low as 15% of normal. Gasell and Almroth-Wright demonstrated experimentally that a decreased volume-flow of blood resulted in a decreased alkaline reserve of the blood—what we know as acidosis. The acidosis was evidently the result of suboxidation in the tissues.

This certainly accounts very well for the symptoms we find in conditions where the fluid intake has not kept pace with the fluid loss. Depending upon the decrease in the volume-flow of blood, resulting in suboxidation of the tissues, the symptoms of a mild or severe acidosis results. As a consequence of the suboxidation of fat, acetone bodies are formed and are excreted in the urine. The fact that acetone, diacetic acid and beta-oxybutyric acid appears in the urine. The fact that acetone, diacetic acid has yet occurred, as the hydrogen ions are rapidly neutralized by the sodium in the tissue fluids, the potassium in the cells, and by the alkaline earths, chiefly derived from the bones (Smith 2). But it does mean that the alkaline reserve is being lowered, and should indicate proper therapy, i. e., the supplying of fluids to increase blood-volume, and blood-volume flow, and thereby increase tissue oxidation.

Occurrences of slight dehydration are very frequent in infants and young children. Frew (London Lancet, 1911, II 1263) found that acetone was present in 60% of 662 consecutive patients admitted to Great St. Ormand Street Hospital, London. Such cases that are merely transient take very good care of themselves, provided the patients are conscious, are of sufficient age to make known their wants, and have a retentive stomach. It is the severe forms that I wish principally to stress. Before such cases

reach the extreme stage of acid intoxication, characterized by hyperpnea and coma, when the condition is all too obvious, treatment should already have been instituted.

The severe cases of dehydration that occur in the pneumonias, severe diarrheas, and intoxications accompanied by vomiting, all give very convincing symptoms that the body is in need of more fluids. The symptoms resemble closely those observed in surgical shock—thirst, pinched and anxious facial expression, pallor, irritability and restlessness, which give way in turn to fitful slumber, where the respirations are still rapid and shallow, but may show varying periods of cessation.

As to the methods of supplying a sufficient amount of water, we have the usual means. Where it is obviously impossible to give a sufficient amount by mouth, enteroclysis, hypodermoclysis, intravenous, or intraperitoneal methods are left to choose from. Generally enough can be given by enteroclysis and hypodermoclysis to restore the normal fluid balance. Salt solution is preferable to other forms, when given in any way other than by mouth; though if any fear of renal insufficiency arises, tap water can be used as well. I might say that during the past year, in which time I have used only normal saline and tap water, results have appeared much better to me than in the past when I used bicarbonate of soda solutions.

If results are only equally as good, it is certainly preferable to employ salt solution or tap water, to the alkaline solutions, for the reason that alkaline solutions are very unpleasant to the palate, and the amount of fluid which could be given by this route will be greatly curtailed. Given via the rectum, alkaline solution does not seem to be borne nearly so well as saline or tap water, and the colon soon becomes intolerant. Its employment intravenously is, at best, attended with a great many difficulties, and ill effects often seen, that are absent when saline or tap water are similarly employed.

Joslin, in his second edition, on the treatment of diabetes mellitus, cites some convincing recoveries in cases of severe acidosis, on employment of saline and tap water.

His cases (measured in mm. Hg.  $\text{CO}_2$  alveolar air) ranged from 15-25. As a further reason for his abandonment of alkaline treatment, he quotes Allen in his Harvey Lecture: "Aside from a possible very brief rise in blood pressure, sodium bicarbonate intravenously, or otherwise, brings no visible benefit to the dog dying of acidosis."

#### CONCLUSIONS.

In all severe illness, particularly those accompanied by diarrheas, high fevers and vomiting, frequent examinations of the urine should be made to determine the presence or absence of acetone bodies. The Fe Cl test positive will be a reliable indication that the patient is in need of more fluids. Other clinical signs of dehydration should be carefully watched for.

2. Firmness of the skin and subcutaneous tissue is no indication that a condition of dehydration does not exist, or, vice versa. Absence of cyanosis is not an indication that tissue oxidation is progressing normally, as we are all familiar with the apparently healthy color so often seen in severe grades of acidosis.

3. Infants can be given a quart of salt solution daily by hypodermoclysis, and as much again by the Murphy drip.

1. Marriott, W. McK. *Arc. Ped.* Vol. XXXVI 328.

2. Smith, Archibald D. *Arc. Ped.* Vol. XXXIV 483.

#### FORMULA FOR MOUTH WASH.

Castile soap, dried and granulated, 6.00 gm.; benzosulphinid, 0.20 gm.; basic fuchsin, 0.002 gm.; oil of cassia, 0.50 c. c.; oil of peppermint, 0.50 c. c.; oil of cloves, 1.00 c. c.; alcohol, 75 c. c.; water to make 100 c. c. A few drops added to water to be used as a mouth wash. It will be noted that, except for the volatile oils present, antiseptics are conspicuous by their absence. It is impossible to disinfect the mouth. Mere bacteriostatic (germ growth inhibitive influence of antiseptics can be of value only as long as the agent is present; and the time that one is willing to keep the mouth full of fluid is limited. The chief virtue of mouth wash preparations lies in their esthetic qualities, their pleasant appearance, odor and taste, which induces their use.—(*Jour. A. M. A.*, June 19, 1920, p. 1732).

# THE JOURNAL

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## Editorial Department

## FEE-SPLITTING.

At a recent meeting of Council of the Medical Association of Georgia, a resolution was passed appointing a committee of one to write an editorial for publication in the August issue of the Journal upon fee-splitting.

The following letter recently received by the writer is selected as a text:

Dear Doctor:

You and I are practicing for a living and I have a patient who is big rich and I want to send him to you next week instead of letting him go to ———, and I am in need of some money and he can pay the big fees like Dr. ——— gets, so let's go 50-50 on him—you treat him there and me here. Now if you will do this wire me tomorrow to send the patient, if not tear up this letter and by all means don't ever mention this, but other doctors does this for me. So don't mention this but wire me and write me he has plenty sure enough.

This shows the crime of fee-splitting is upon us like a pall. The medical profession stands out so pre-eminently for honor, integrity and altruism, that when fee-splitting is discussed in a general way we doubt its existence except in the very lowest strata, but such concrete evidence as the above should awaken us from our lethargy.

Men who are splitting fees and expect to continue to do so should go into something more honorable like "farro," "three card monte" or other shell games, and hire those who are accepting the split as cappers.

The American College of Surgeons in its effort to standardize hospitals requires, among other things, that visiting physicians to hospitals qualifying under its requirements shall take an oath not to split fees. This is like taking an oath that we will not steal, and is an insult to self-respecting men. A man who will split fees will take an oath that he will not do so, and continue with his heinous practice.

The burning question then is, how shall we purge the association of these money changers in the temple?

There are three classes of fee splitters:

(1) Inate crooks.

(2) The man, impecunious, young or otherwise handicapped who resents the bulk of work going to the man higher up whom he may consider his inferior in ability.

(3) The man who has not fully comprehended the heinousness of fee-splitting.

Class one is hopeless and unreclaimable since crooks are usually born and not made.

Class two may reform autogenously by becoming more prosperous or by seeing the error of his way, and one of the purposes of this essay is to aid and hasten him in his reformation. O, for a Billy Sunday to help him hit the Hypocritical Trail! Doctor, it is



assumed in the outset that you know better, so rise above this monster before it is too late, before your conscience is dulled, before you become stultified, before you get the habit, and say "get thee behind me Satan." The science of medicine must not be dragged down to such low depths. It stands for everything that is ennobling, honorable, uplifting, sacred,—a shrine upon the altar of which should be laid the labor-offering of him who serves.

Class three is made up chiefly of men who in their busy career do not analyze the ethical aspects of fee-splitting, satisfying themselves that they have rendered service for the fee and that they are getting only what is due.

Doctor, after years of preparation and probably weeks of skillful service do you feel so ashamed of this preparation and skill that you must stealthily and secretly obtain your well earned fee? Do you feel so servile as to besmirch your Aesculapian escutcheon by accepting a tip like a menial? If you have done such a thing hang your head in shame. Ask the God who made you for forgiveness. Go to him who stultified you and fling the money in his face. Your patient has selected you of all other doctors. He must think you the most skillful man available. He has paid you the highest tribute he could possibly pay a doctor. Would you so degrade yourself as to ask some one to steal a fee which you have so justly earned from him who has entrusted you with his life?

The very acme of skill in medicine is diagnosis. Diagnose your case correctly; if you find you need help select that help conscientiously, then look your patient square in the face and charge him an adequate fee for the most skillful service that a doctor could possibly render him.

E. C. THRASH, M. D.,  
Committee.

#### MAKING DOCTORS WHILE YOU WAIT.

Under the above title George Creel\* gives a very interesting and instructive account of his personal experiences in investigating sev-

eral of the Chiropractic schools. According to his account the schools are unanimous in their statements that any human being of ordinary intelligence can learn the profession (?) of Chiropractic in a few weeks by mail and immediately start out in the enjoyment of a lucrative practice and cure almost any malady to which the human body is subject. A common school education is said to be of value but even this is not essential, provided the applicant has the necessary funds to pay for his lessons and diploma. He quotes from one of their letters: "As to the time and money required for the preparation—why, they are both insignificant! Our course is so simplified, so easy to understand, everything has been made so plain that it can be fully mastered by any one who can read and write intelligently in a surprisingly short time. Just an hour or so of pleasant home study each day and almost before you realize it, you will have a thorough, comprehensive knowledge of Chiropractic and our valuable diploma in your possession." \* \* \* "Think, then, of the limitless field for legitimate big money making which this wonderful science opens up! How can it do otherwise than appeal with simply irresistible force to ambitious, red-blooded men and women who want to do big things and gain **bigger rewards**. Why, do you know that incomes of \$10,000 and \$12,000 a year are not uncommon among Chiropractors?"

The three things that are stressed by the "Chiro" schools are these: (1) Little or no education is required. (2) Only a few hours of pleasant "home study" are necessary in order to complete the "course," and the cost is small, "a-little-along-as-you-go," and then, "our valuable diploma." (3) A large and lucrative practice, social distinction and "overwhelming public esteem" are assured. Should we be surprised that the ignorant, the grafters, the easy-money crooks "fall for" such "bunk" as this?

Compare this with what is required of a "regular physician" in Georgia today. We require (1) a public school education, (2) a four-year high school course, (3) two collegiate years in physics, chemistry, biology

and the languages, (4) four years of nine months each in the study of medicine. In addition to this many spend from one to three years as interns in general and special hospitals. Is it right? Is it just? Should these "Mail Order Miracle Men and Women" be permitted to compete with and set up offices next to the men and women who have qualified themselves to practice medicine?

Creel concludes his series of articles as follows:

It may be stated again that there is not the slightest intent in these articles to report for or against any school of medicine or any kind of healing. The point is this: that no man or woman should be turned loose on the public without proper preparation.

The question is not one of quarreling schools but of the public health and its protection against ignorance, no matter how well meaning. The vital issue is education and training! It is of infinitely less importance **how** an ill is treated than that the practitioner should know just what ill it is that he is **treating**.

This educational approach to the public health problem involves no partisan advocacy or antagonism. Better, indeed, if the whole business of licensing were taken out of the hands of doctors of any sort, and placed in charge of a board of laymen picked for their high educational qualifications.

It is the right of a State to demand that every man or woman, **before entering any school of instruction in the healing art**, should show credentials from a public school and high school, at least, and then, after graduation, to ask that they pass an examination in elementary physiology at least.

Every sincere school of healing should be more than willing to submit to the purely educational test.

\*Harper's Weekly, 4-3-'15.

### THE PASSING OF GENERAL GORGAS.

Major-General William Crawford Gorgas former Surgeon-General of the U. S. Army, and President of the American Medical Association (1909-10), died in London on July 4th, from cerebral hemorrhage, at the age of 66. With the passing of General Gorgas the Medical Profession lost one of its most illustrious members not only of the present generation, but of all time. He was one of the noblemen which the South has furnished to our profession. Born at Mobile, Alabama, he received his collegiate education at the University of the South and his medical training at Bellevue Hospital Medical School. Soon after serving an internship in Bellevue Hospital he entered the Army where he contributed so much to preventive medicine, his first notable achievement in this line being the stamping out of yellow

fever in Havana, in recognition of which he was promoted to colonel and assistant surgeon-general in 1904. In 1915 he was made major-general for life in recognition of his brilliant achievements in sanitation in the Canal Zone. Some idea of his work in the World War is shown by the fact that the Medical Department was the only department of the Army which passed through this period without "investigations" and with unstinted praise. On one of the many occasions when the medical profession honored General Gorgas, Welch said: "In the conquest of science over disease, in the saving of untold thousands of human lives and human treasure, in the protection of our shores from the once ever-threatening scourge of yellow fever, in the reclamation to civilization of tropical lands—in results such as these are to be found the monuments of our laureate, his victories of peace."

### SEVENTH DISTRICT SOCIETY WILL ERECT MEMORIAL TO DR ROBERT BATTEY.

At the meeting of the Seventh District Medical Society in Dalton, Georgia, on July 7th, a resolution was unanimously adopted by the society that the president appoint a committee to plan and erect a suitable memorial to the memory of Dr. Robert Battey.

By virtue of the authority vested in me as president, and under this resolution, I have the honor of appointing the following gentlemen to serve on this committee and request them to meet for organization and discuss ways and means, etc., on Wednesday, August 25th, 1920, at the Harbin's Hospital, Rome, Ga., one o'clock P. M.

Dr. W. P. Harbin, Rome, Ga.

Dr. J. H. Hammond, LaFayette, Ga.

Dr. Ross P. Cox, Rome, Ga.

Dr. G. W. England, Cedartown, Ga.

Dr. C. F. McLain, Calhoun, Ga.

Dr. J. C. Watts, Rome, Ga.

Dr. Howard E. Felton, Cartersville, Ga.

Dr. C. T. Noland, Marietta, Ga.

Dr. J. G. McAfee, Dalton, Ga.

Dr. H. L. Erwin, Dalton, Ga.

Dr. George N. West, Chattanooga, Tenn.

Dr. J. W. Curry, Greenville, S. C.

HOWARD E. FELTON,  
President Seventh District Medical Society.  
Cartersville, Ga., July 25, 1920.



**NEWS ITEMS.**

Dr. Joseph Brown Davis, formerly associated with Dr. Hugh M. Lokey, Atlanta, announces the opening of offices in the Gardner Building, Daytona, Fla. His practice will be limited to diseases of the Ear, Eye, Nose and Throat. We will miss the genial "Brown" but wish him all the success possible in his new location.

Dr. Marvin Smith who graduated at the Atlanta School of Medicine in the Class of 1910, and served an internship in the Tabernacle Infirmary (now Georgia Baptist Hospital), announces the opening of his private Sanitarium and Diagnostic Institute at Jacksonville, Fla. He has a capable diagnostic staff associated with him. The many Georgia friends of Dr. Smith have watched his growing success with a great deal of pride and interest.

Dr. Richard Holt, formerly of Atlanta, has recently located at Parott, Ga.

Announcement has been made of the opening of the University Sanitarium, Anderson, S. C., on July 22, 1920. Mrs. Frances M. Montgomery will be the superintendent.

Dr. George F. Klugh, formerly of the Laboratory Staff, U. S. General Hospital No. 6, and Laboratory of the Southeastern Department, U. S. Army, Ft. McPherson, Ga., has located in Atlanta, where he will be associated with the Laboratories of Drs. Bunce and Landham. Dr. Klugh received his B. S. degree at Clemson (S. C.) in 1901 and his M. D. at George Washington University Medical School in 1909. After spending eight years in Scientific Research with the U. S. Department of Agriculture he has just finished three years service in the Laboratory Service of the U. S. Army.

Dr. J. O. Elrod, of Forsyth, Councillor for the Sixth District, announces that Pike County has a 100% Society. We congratulate Dr. Elrod and Pike County. Two 100% Societies have now been reported—Tift and Pike. Let's start an honor roll and place these at the top. Come on, fellows, who will be next 100% County? To the Secretaries

of the County Societies: If you have every eligible physician in your county as a member of your society, please notify the Secretary of the State Association so that your county may be placed on the Honor Roll.

The Eighth District Medical Society held its annual meeting at Watson Springs, Greene County, Wednesday, August 11th. A good program, an old fashioned barbecue, a splendid orchestra, a dance and an excellent scientific program were offered the members and visitors. All members of the State Association and County Societies were invited. Dr. W. E. McCurry, of Hartwell, is Councillor for this District. Dr. E. H. Kenimer, Bishop, Ga., is the president, and Dr. D. M. Carter, Madison, Ga., is the Secretary-Treasurer of this Society.

Dr. W. W. Tison, Cedartown, Ga., the live Secretary of the Polk County Society, has called our attention to a gross error in reference to the membership list from his county. We are indeed glad to make the correction in reference to Polk County and will thank other Secretaries to check up the list of their members as printed in the Directory Number of the Journal and notify us of any errors. Dr. Tison suggests that in addition to News Items in reference to marriages, deaths, changes of location, etc., that we publish a list of counties having full time Health Officers under the Ellis Bill, a list of counties wanting these officers and also the changes from time to time. We have accepted this valuable suggestion and are publishing elsewhere such a list as obtained from the Annual Report of the State Board of Health. The chief object of The Journal is to serve the profession of the State. If you will let the Secretary know how he may be of service to you you will render a real service to Medicine in Georgia.

The corrected roster of the Polk County Society is as follows:

**OFFICERS.**

J. J. Cooper, M. D., President.  
Ivey Gouldin, M. D., Vice-President.  
W. W. Tison, M. D., Secretary-Treasurer.

**MEMBERS.**

J. J. Cooper, M. D., Cedartown.  
J. W. Good, M. D., Cedartown.  
Ivey Gouldin, M. D., Cedartown.  
H. M. Hall, M. D., Cedartown.



T. E. McBride, M. D., Rockmart.  
 C. W. Peek, M. D., Cedartown, R. F. D.  
 J. E. Pennington, M. D., Esom.  
 E. H. Richardson, M. D., Cedartown.  
 W. W. Tison, M. D., Cedartown.  
 C. V. Wood, M. D., Cedartown.  
 S. L. Whitley, M. D., Cedartown.

The annual report of the Georgia State Board of Health is now ready for distribution. All physicians desiring a copy of this report will please communicate with the Georgia State Board of Health.

The Journal is indebted to Dr. C. G. Hooten, Bronwood, Ga., Secretary of the Terrell County Society, for valuable assistance in its news section.

Dr. E. H. Martin, Hot Springs, Ark., announces the formation of The Martin Clinic. He has associated with him six physicians and surgeons.

The First Congressional District Medical Society held its semi-annual meeting in Savannah on July 15th. Dr. L. W. Williams, of Savannah, is the Secretary-Treasurer of the Society and Dr. A. J. Mooney, of Statesboro, is the Counsellor from this district.

The Second District Medical Society held its semi-annual meeting in Thomasville, on August 13th. The officers of this Society are: Dr. W. L. Davis, Albany, President; Dr. W. H. Hendricks, Tifton, Vice-President and Dr. A. W. Wood, Albany, Secretary-Treasurer. The Counsellor from the Second District is Dr. C. K. Sharp, of Arlington, who describes this District as "God's Country," and states that it was known as "Egypt" during the Civil War on account of its bountiful supply of food to the Confederate armies. The Secretary has always found the Second District "Johnny-on-the-spot" in reference to all Association matters. This is the only district from which we have received a complete written report for last year.

Dr. J. P. Proctor, Athens, is recovering from a recent operation for appendicitis which was performed at St. Mary's Hospital,

Athens, Ga. We suspect that Dr. Proctor has already decided that it is more pleasant to "cut" than "to be cut." However, he was in the hands of two of his capable friends, Drs. E. C. Davis and H. M. Fullilove.

Among those from out of town to appear before the Appropriations Committee of the Legislature on the matter of the Crawford W. Long Statue were Dr. W. E. McCurry, Hartwell, and Drs. D. H. DuPree and H. M. Fullilove of Athens.

St. Mary's Hospital, Athens, announces the completion of a model Nurses' Home, connected directly with the main hospital building. In addition, St. Mary's has begun the construction of a new hospital building of twenty-five bed capacity.

Dr. C. G. Butler has been appointed physician to the University of Georgia, Athens, with offices in the Crawford W. Long Infirmary. The University is looking after the physical well being of its students as well as after their educational training.

Let every member of the Association appoint himself a committee of one to send in to the Secretary all news items and other information of interest to the profession in the State. To each unmarried member: Let us know the fortunate—or unfortunate— young lady. Also the day and place. The girls have our sympathy. To the married: Let us know of the additions to the family. We will thereby be enabled to rejoice with you.

Dr. Charles Chassignae, of the New Orleans Polyclinie, announces that this school has for a number of years had a branch devoted entirely to anaesthesia under the direction of Dr. Carroll W. Allen and this year his ranking has been raised to full professorship.

The House of Delegates of the California State Medical Association has passed the following resolution:

1. That the administration of an anaes-

thetic is always the function of a legally qualified medical practitioner.

2. That the administration is best performed by physicians specially trained or who have made a specialty of this subject.

3. That wherever available, hospitals and public institutions, where anaesthetics are administered, employ only physicians as anaesthetists.

4. That this Society condemns, under all circumstances, the training and qualification of lay persons as anaesthetists.

5. That no hospital shall be deemed to have acceptable standing which charges a fee for an anaesthetic unless such anaesthetic has been administered by a legally qualified physician.

#### MEMBERSHIP IN NATIONAL ANAESTHESIA RESEARCH SOCIETY.

Any individual holding a degree of Doctor of Medicine, or Doctor of Dental Surgery, from a duly recognized college or university, shall be eligible for professional membership in this society, as long as he is not associated in any way with any individual, partnership or corporation manufacturing or interested in the manufacture of any anaesthetic or anaesthesia apparatus.

##### Objects.

(Article II, By-Laws)

1. To promote the science of anaesthesia and to enable its members, or others, to submit to the dental and medical professions any views, findings, or accomplishments they have attained.

2. To obtain from all available sources, information concerning any materials, liquid or gas, known to have anaesthetic properties.

3. To arrange, in cooperation with dental, medical, and anaesthesia associations, for the preparation and delivery of suitable, interesting and educational papers on the general subject, or relative to some particular anaesthetic.

4. To use its influence to avoid the publication or circulation of any false or unauthentic statements concerning the science or practice, or about any anaesthetic.

5. To receive and tabulate reports of any and all conditions, symptoms, or phenomena prevailing during or after anaesthesia by any anaesthetic, and to prepare and distribute on request, forms on which such information can be tabulated with uniformity.

6. To distribute by pamphlet or publication, as its funds may permit, such reliable data as may be collected or obtained from those interested in the subject.

7. To aid, as far as possible, in the preparation, publication, and sale of suitable text books on the subject of anaesthesia, and to prepare as rapidly as possible, reference books for use by the medical and dental professions.

8. To cooperate with the state authorities in the preparation of suitable legislation to safeguard those to whom an anaesthetic is to be administered, as well as those called upon to administer it.

9. To arrange for the production of moving picture films to illustrate to the profession the action of anaesthetics on the patient during induction and anaesthesia, and to prepare articles for publication in magazines and the public press.

10. To use its influence in every way possible and to give its aid toward the advancement of the science of anaesthesia.

##### Dues:

The annual dues for membership in this Society are \$2.00 per year, payable in advance. Please send dues and membership card to T. T. Frankenberg, Executive Secretary, 16 East Broad St., Columbus, Ohio.

##### Board of Control:

Stephen Morris, Philadelphia; J. G. Sholes, Cleveland; Dr. E. I. McKesson, Toledo; B. J. Clark, Minneapolis; Dr. F. H. McMechan, Avon Lake; Dr. W. I. Jones, Columbus.

Dr. R. L. DeSausure, Commissioner of Health, Floyd County, Rome, Georgia, has resigned to accept a similar position in Glynn County, Brunswick, Ga.

Dr. R. W. Todd has resigned as Commissioner of Health, Glynn County, Brunswick, Ga., to accept a similar position in Cobb County, Marietta, Ga.

Dr. Landrum J. Page, of Dublin, Ga., has been elected Commissioner of Health of Hart County, Hartwell, Ga.

Dr. W. H. Bryan, Pavo, Ga., has been elected Commissioner of Health, Bartow County, Cartersville, Ga.

Dr. H. F. Hope has resigned as Commissioner of Health of Walker County, LaFayette, Ga., and Dr. J. A. Johnson, of Millen, Ga., has been elected to fill the vacancy.

Dr. R. A. Herring, Commissioner of Health, Baldwin County, Milledgeville, Ga., has resigned to accept the position of Health Officer of Wilmington, N. C.

The title "Division of Rural Sanitation" of the Georgia State Board of Health has been changed to the "Division of County Health Work."

Telfair County, McRae, Ga., has adopted the Ellis Health Law. Brooks County, Quitman, Ga., has also adopted this law.

### MEETING OF THE SIXTH DISTRICT MEDICAL SOCIETY.

The Sixth District Medical Society held its semi-annual meeting at the Wigwam Hotel, Warm Springs, Wednesday, July 14, 1920. About sixty-five members were present. In the absence of the President, Dr. I. H. Adams, Macon, the meeting was presided over by the Vice-President, Dr. A. H. Black, of Thomaston.

The morning session was taken up with the reading and discussion of papers. Clinical cases were exhibited and discussed at the afternoon session.

A resolution was adopted concerning House Bill No. 1, intended to legalize Chiropractors in Georgia.

Resolution—The Sixth District Medical Society, being in session at Indian Springs, Ga., July 14, 1920, earnestly requests that you use your influence to defeat House Bill No. 1, intended to legalize Chiropractors in Georgia.

A telegram of this resolution was sent to each of the Senators from the Sixth District—Hons. J. J. Flynt, Ivan E. Allen, Ben J. Fowler, W. P. Wallace, A. J. Woods, R. C. LeSuer and J. R. Lunsford. A written copy of this telegram was also sent, to which was attached a list of the entire membership of the Sixth District Medical Society.

The following is the scientific program which was rendered at the morning session:

1. The Early Diagnosis of Syphilis, D. A. Gregory, M. D., Macon.
2. The Use and Abuse of Purgatives, O. H. Weaver, M. D., Macon.
3. Focal Infection, Wm. C. Pumpelly, M. D., Macon.
4. Polyuria, C. C. Hinton, M. D., Macon.
5. The Use and Abuse of Pituitrin, C. H. Richardson, M. D., Macon.
6. The Puny Child, T. D. Walker, M. D., Macon.

### MEETING OF THE SEVENTH DISTRICT MEDICAL SOCIETY.

The Seventh District Medical Society met in Dalton, Wednesday, July 7th. The President, Dr. H. L. Erwin, Dalton, presided and the Secretary, Dr. M. M. McCord, Rome, was in his place.

Invocation was led by Rev. F. K. Sims, of Dalton.

Col. W. C. Martin delivered the address of welcome in behalf of the City of Dalton, and Dr. J. G. McAfee in behalf of the local profession. The response was delivered by Dr. Howard E. Felton, of Cartersville.

The minutes of the previous meeting which was held in Cartersville last November, were read by the Secretary and adopted.

Dr. Geo. R. West, Chattanooga, Tenn., read a paper on "Ectopic Gestation." This was discussed by Drs. Haskin, J. C. Rollins and C. Hamilton.

Dr. W. H. Lewis, Rome, read a paper entitled "Diagnosis of Renal Surgical Conditions" which was discussed by Drs. West and Felton.

Dr. W. L. Funkhouser, Atlanta, presented a paper on "Pyelitis in Infancy and Childhood" which was discussed by Drs. McCord and Lewis.

Dr. M. M. McCord, Rome, read a paper entitled "Infant Starvation" which was discussed by Dr. Funkhouser.

Dr. J. P. Bowdoin presented the subject "Diagnosis and Treatment of Syphilis." Dr. Sam Brown, Eton, discussed this subject.

Dr. Cooper Holtzelaw, Chattanooga, Tenn., discussed the subject "Duodenal and Gastric Ulcer."

A symposium on Nasal Accessory Sinuses was the next subject considered. Dr. Geo. B. Smith, Rome, discussed the symptoms and diagnosis while Dr. Lawwill, Chattanooga, Tenn., discussed the pathology and treatment.

Dr. Stewart R. Roberts, Atlanta, delivered an address on "Organization in Medicine."

Dr. Howard E. Felton, Cartersville, offered a resolution that a committee be appointed to secure funds for the erection of a suitable memorial to commemorate the life of the late Dr. Robert Battey, of Rome, and that this memorial be presented with appropriate exercises at the next meeting of the Medical Association of Georgia to be held in Rome next May. A list of the members of this committee together with the text of the resolution appears elsewhere in this issue of The Journal.



A resolution was passed expressing the appreciation of the Society for the hospitality shown by the City of Dalton and the members of the Whitfield County Medical Society.

The following officers were elected for the ensuing year:

President, Dr. Howard E. Felton, Cartersville.

Vice-President, Dr. C. F. McLain, Calhoun.

Secretary-Treasurer, Dr. M. M. McCord, Rome.

The officers will decide the next place of meeting which will be held in December.

The Georgia Baptist Hospital has recently bought the Bartow Apartments, 95 Luckie St., and will open it at a very early date for hospital purposes. This apartment is directly across the street from the present hospital building. When the remodelling is completed, there will be 75 additional hospital beds, with two operating rooms for eye, ear, nose, and throat work. This building will be used for medical cases and eye, ear, nose, and throat work. When this building is opened the hospital will have 210 beds, with all modern and up-to-date hospital conveniences.

#### ABSTRACTS.

A Comparative Study of the Trypanocidal Activity of Arsphenamine and Neo-arsphenamine. By Jay F. Schamberg, M. D., John A. Kolmer, M. D., and George W. Raiziss, Ph. D. American Journal of the Medical Sciences, July, 1920.

Some years ago, Ehrlich announced, as the result of comparative therapeutic tests conducted by Hata, that 0.9 gram neosalvarsan possessed the same curative value that 0.6 gram salvarsan did possess. Since that time, however, several syphilographers of experience have expressed the opinion that 0.9 gram neo-arsphenamine does not possess the same therapeutic activity that 0.6 gram arsphenamine does.

As a result of an elaborate series of tests, conducted to settle this question, Schamberg, Kolmer, and Raiziss came to the conclusions that the trypanocidal activity of arsphenamine is 1.74 times greater than that of neo-

arsphenamine; and that 0.6 gram arsphenamine equals 1.05, rather than 0.9, gram neo-arsphenamine in therapeutic value. These investigators believe that neo-arsphenamine is a somewhat safer compound, even when 1.0 gram of neo-arsphenamine is administered as the therapeutic equivalent of 0.6 gram arsphenamine.

M. F. MORRIS, Jr.

Carcinoma of the Pancreas. By Kellogg, Speed, M. D. American Journal of the Medical Sciences, July, 1920.

In this paper, Speed discusses carcinoma of the pancreas in general, and, in particular, fifty-two cases of this disease which he found in the records of the Cook County Hospital, occurring within the last six years. He mentions several of the symptoms, the chief of which was cachexia, this being present in 90 per cent of the cases at the time of admission. The weight loss varied from a few pounds to eighty pounds. Speed considers the weight loss so rapid and unremitting that the disease should be suspected whenever a rapid reduction in weight is complained of by the patient. The next most frequent symptom was progressive and intense jaundice, which was found in 80 per cent of the cases at the time of admission. Next, in order of frequency, was pain, usually cardialgic or gastralgie in character, and often referred to the back. Pain was complained of in 61 per cent of the cases. A tumor in the abdomen was known to be present by the patient or was found at the time of admission in 55 per cent of the cases. Ascites was present and hemorrhages occurred in 20 per cent of the cases. Edema of the lower extremities occurred in 6 per cent. Nineteen of the 52 patients complained of constipation, while three had diarrhoea. The elaborate Cammidge test and the Loewi adrenalin test of pancreatic function were of no value in making a diagnosis. It is interesting to note that only 3 of the 52 cases were correctly diagnosed at the time of the first examination.

The treatment is only palliative. Draining the distended gall-bladder by cholecystenterostomy or cholecystgastrostomy, gives some relief. But, due to the anatomi-

cal position of the gland, other surgical treatment is fraught with disaster. In fact, Speed has found, in the literature, no record of complete pancreatectomy, successfully done, in cancer of the pancreas.

M. F. MORRIS, Jr.

The Skin Lesions of Syphilis. By Loyd Thompson, Ph. B., M. D., F. A. C. P. International Clinics, Vol. II, Thirtieth Series, 1920.

In an extensive and complete discussion of the various syphilodermata, Thompson reminds us that the skin lesions of syphilis may simulate almost any form of cutaneous disease. In most cases, however, the syphilodermata have certain characteristics upon which a diagnosis can be made. He enumerates the following distinguishing features of the cutaneous manifestations of lues: (1) their dark red, ham, or coppery color; (2) their usual freedom from pain or pruritus; (3) their usual development with little or no fever, but if fever does exist, it is usually of a mild type; (4) their comparatively slow development; (5) their tendency to polymorphism; (6) their usual firm consistency; (7) their tendency to circular arrangement; (8) their frequent location on flexor surfaces; (9) their usual symmetrical development; (10) the frequent development of papules; (11) the usual circular formation and small size of the lesions developing early in the course of the disease; (12) the usual white color and non-adherence of the scales; (13) the greenish or black color, the irregularity, thickness, and adherence of the crusts; (14) the tendency of the ulcers to kidney or horse-shoe shape. However, even with an excellent knowledge of these characteristics, in some cases one must resort to laboratory procedures and therapeutic tests in order that one may make a positive diagnosis.

M. F. MORRIS, Jr.

#### NEW AND NON-OFFICIAL REMEDIES.

The following articles have recently been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Non-official Remedies:

Abbott Laboratories:

Benzyl Benzoate (Abbott).

Elixir Benzyl Benzoate (Abbott).

Tablets Benzyl Benzoate (Abbott).

Hynson, Westcott and Dunning:

Whole Ovary—H. W. D.

Whole Ovary Tablets—H. W. D. 5 gr.

#### WARNING AGAINST UNTRIED MEDICAMENTS.

The United States Public Health Service has issued a circular regarding the use of arsenic preparations in the treatment of syphilis, in which it invites attention to the extensive exploitation of various arsenic preparations which are not related to the arsphenamin group. It is held that the subcutaneous, intramuscular or intravenous use of arsenic in the treatment of syphilis should be confined to the arsphenamin group, as these agents are now of established value and are produced under the supervision of the Public Health Service.—(Jour. A. M. A., June 12, 1920, p. 1654).

#### QUALITY OF ACETYLSALICYLIC ACID.

The following brands of acetylsalicylic acid have been found of satisfactory quality and are in New and Nonofficial Remedies: Acetylsalicylic Acid, Heyden; Acetylsalicylic Acid, M. C. W. Acetylsalicylic Acid, Merck; Acetylsalicylic Acid (Aspirin), Monsanto; Acetylsalicylic Acid, P. W. R.; Acetylsalicylic Acid, Squibb, and Aspirin, L. and F. An examination made in the A. M. A. Chemical Laboratory two years ago showed that the product supplied as acetylsalicylic acid was of equal quality with the German made Aspirin Bayer. The Aspirin Bayer now made in America and exploited with misleading claims is controlled by the Sterling Products Company, which sells cascarts, danderine, etc.—(Jour. A. M. A., June 12, 1920, p. 1664).

#### BOOKS RECEIVED.

Nervous and Mental Diseases.

The new (9th) Edition.

Nervous and Mental Diseases. By Archibald Church, M. D., Professor of Nervous and Mental Diseases in Northwestern University Medical School, Chicago; and Frederick Peterson, M. D., formerly Professor of Psychiatry, Columbia University. Ninth edi-

tion, revised. Octavo volume of 949 pages, with 350 illustrations. Philadelphia and London. W. B. Saunders Company, 1919. Cloth, \$7.50 net.

### Human Parasitology.

Human Parasitology, with notes on Bacteriology, Mycology, Laboratory Diagnosis, Hematology and Serology, by Damaso Rivas, M. D., Ph. D., Assistant Professor of Parasitology and Assistant Director of the course in Tropical Medicine, University of Pennsylvania, Octavo Volume of 715 pages with 422 illustrations and 18 plates most of which are in colors. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$8.00 net.

### The Diseases of Infants and Children.

The Diseases of Infants and Children. By J. P. Crozer Griffith, M. D., Ph. D., Professor of Pediatrics in the University of Pennsylvania. Two octavo volumes. Philadelphia and London: W. B. Saunders Company, 1920.

### MARRIAGES.

Dr. James Arren McAllister to Miss Tressie Fitts, both of Atlanta, Wednesday, June 30, 1920. At home after the fifteenth of July, 241 Lueile Avenue, Atlanta, Ga.

Dr. Homer L. Barker, Carrollton, Ga., to Miss Bessie Treadaway, Tallapoosa, Ga., Wednesday, July 14, 1920. At home after August the fifth, Carrollton, Ga.

Dr. Steve Kenyon, Dawson, Ga., to Miss Lueile Hooper, Atlanta, Ga., June 16, 1920. At home after July fifteenth, Dawson, Ga.

Dr. Trimble C. Johnson, Atlanta, to Miss Alice Anderson, Marietta, Ga., June 22, 1920. At home after August 1st, 11 Collier Road, Atlanta, Ga.

### DEATHS.

Charles O. Broek, Jefferson, Ga.; Atlanta (Ga.) Medical College, 1880; aged 62; a member of the Medical Association of Georgia; died, May 29, from chronic nephritis.

Guy L. Bush, Atlanta, Ga.; Atlanta College of Physicians and Surgeons, 1908; aged 36; died June 9, 1920.

Marion T. Davis, Atlanta, Ga.; University of Maryland School of Medicine, 1892; aged, 49; a member of the Medical Association of Georgia and American Medical Association; died, June 25, 1920.

### PENNINGS OF POLLY DIPsia.

(Censored.)

What a Journal for July! Let's brag on the secretary, maybe he will keep it up.

Let us hope that endocrine fervor will divert the faddist from the teeth.

Was your county listed in the roster published in the July number? If not, why not?

Would it improve conditions for the surgeons to take a lesson from the amygdolectomists and become Orchidectomists?

The code of medical ethics will keep you out of court, but you can stay within its bounds and be as crooked as a cork screw.

Dear P. D.:

Is acidosis on the decline?

(Signed)

Confused.

Dear Confused:

No. Acidosis has recently been in a state of diplosomia,—one of its moieties being in the blood of the patient and the other in the cranium of doctors suffering from a lack of intra-cranial cerebral filling. Experience and time have in a measure corrected this cerebral filling defect and the two moieties are more nearly united, so now the disease is again expending its chief energies in acidulating the blood of the patient, as formerly, and not in encephalonic coddling. This cuts its activities 98 3-4%. (Signed)

Polly Dipsia.

Dear P. D.:

Tell me something of the "interstitial gland" grafting by the notorious French surgeon, Vorinoff, which the newspapers are saying so much about.

(Signed)

S. E. Nile.

Dear Nile:

The gland to which the newspapers refer is an orchid. Natural order (Linnaeus) *Didymus Simianidae*. The organism upon which it grows is tropical in nature but it has been propagated and nurtured in homes of society people, especially around New Port.

Vorinoff guarantees the operatee to be virile, but he gives no assurance that the progeny will not be prognathous and simian. He is practically sure, though, that the candal appendage will not be prehensile.

Frank Lydston claims priority in this work. He tried it on himself. He has certainly developed virility from the way he has attacked Vorinoff for stealing his thunder, but he has as yet reported no offspring.

Polly Dipsia



## HOUSE BILL NO. 1.

## General Judiciary No. 2.

By Mr. Wohlwender & Mr. Stewart.

Read 1st Time June 26, 1919.

Read 2nd Time July 10, 1919.

Read 3rd Time July 16, 1919, and

Passed House.

In Senate.

Read 1st Time July 22, 1919.

Read 2nd Time July 24, 1919.

Tabled August 6, 1919.

## A BILL

TO BE ENTITLED AN ACT to authorize and regulate the practice of Chiropractic, to provide for the licensing and examinations of Chiropractors, to create a State Board of Examination and registration, to provide for the appointment of same, to establish rules and regulations governing said Board, to establish a standard of efficiency, to provide prerequisites and establish a fee for examination, to provide for the disposal of the fund arising from said fee, to regulate the issuance of license to practice Chiropractic, to provide a penalty for practicing Chiropractic without a license as provided by this Act and to repeal all Acts and parts of Acts in conflict herewith, and for other purposes.

## SECTION 1.

That there is hereby created and established a Board to be known by the name and style of the Georgia State Board of Chiropractic Examiners and said Board shall be composed of three practicing Chiropractors who shall be residents of the State of Georgia and who are graduates of chartered Chiropractic schools or colleges requiring actual attendance in same, and shall have practiced Chiropractic continually in the State of Georgia for a period of at least two years.

## SECTION 2.

The Governor of the State of Georgia shall, within thirty days after the taking effect of this Act, appoint three Chiropractors, no two from the same school or college, from a list of six or more names to be submitted to him by the Georgia Chiropractic Association, who shall possess the qualifications specified in Section One of this Act to constitute the members of said Board. Said members shall be so classified by the Governor that the term of office of one shall expire in one year, one in two years and one in three years from the date of appointment, annually thereafter the Governor shall appoint one member who shall be a licensed practitioner and possess the qualifications specified in Section One of this Act, to serve for a period of three years and shall fill all vacancies in said Board caused by death or otherwise as soon as practicable.

## SECTION 3.

(A) Said Board of Chiropractic Examiners shall convene within thirty days after their appointment and elect a president, a vice-president and secretary-treasurer from their membership. (b) Said Board shall hold at least one regular session at such place in Georgia as the Board may decide; the first week in April and such other times as may be found necessary in each year, and shall publish such dates for examinations and place of meeting in some newspaper of general circulation at least fifteen days prior to said meeting. (c) Said Board shall adopt a seal, which shall be affixed to all licenses issued by them and shall from time to time adopt such rules and regulations as they may deem proper and necessary for the performance of their duties, and said Board shall elect annually a president, vice-president and secretary-treasurer. The secretary

of said Board shall keep a record of the proceedings of the Board. The majority of the Board shall constitute a quorum. (d) A license to practice Chiropractic within the State shall be issued to the individual members of said Board at the first meeting of said Board upon the payment of the regular fee as provided for in this Act.

## SECTION 4.

(a) Any person wishing the right to practice Chiropractic in this State shall make application to said Board of Chiropractic Examiners through the secretary-treasurer thereof in such manner as may be adopted and directed by the Board. Each applicant shall be a graduate of a resident course of three years of six months each from a chartered Chiropractic school or college which teaches only attendance courses and applicants shall have had literary training equaling as much as a regular high school course. Applications shall be in writing and shall be signed by the applicant in his own handwriting and shall be sworn to before some officer authorized to administer oaths, and shall recite the history of the applicant's educational advantages, how long he has studied Chiropractic, what collateral branches, if any, he has studied, the length of time he has engaged in clinical practice; with proof thereof in the shape of diplomas, certificates, etc., and shall accompany said application with satisfactory evidence of good character and reputation. (b) There shall be paid to the secretary-treasurer of the State Board of Chiropractic Examiners by each applicant for a license, a fee of \$25, which shall accompany application. Like fees shall be paid for any subsequent application.

## SECTION 5.

All examinations shall be in writing, the subjects of which shall be as follows: Anatomy, Physiology, Symptomatology, Pathology, Physical Diagnosis, Dietetics, Toxicology, Chemistry, Hygiene, and Sanitation, Chiropractic Orthopedy, Nerve Tracing and adjusting as taught by standard Chiropractic schools or colleges. A license shall be granted to all applicants who shall correctly answer seventy-five (75) per centum of all questions asked, and if any applicant shall fail to answer correctly sixty (60) per centum of the questions on any branch of said examinations he or she shall not be entitled to license.

## SECTION 6.

(a) Chiropractors who have complied with the provisions of this act shall have the right to adjust patients in Georgia, according to specific Chiropractic methods and shall observe state, municipal and public health regulations, sign death and health certificates, reporting to the proper health officers the same as other practitioners. (b) Chiropractors shall not prescribe or administer medicine to patients, perform surgery, nor practice obstetrics nor osteopathy.

## SECTION 7.

Chiropractors practicing within this State prior to the passage of this Act who are graduates by attendance of chartered Chiropractic schools or colleges shall be granted a license as herein provided, without examination, provided application be made within thirty days after taking effect of this Act accompanied by the required fee as herein provided.

## SECTION 8.

(a) The State Board of Chiropractic Examiners may refuse to grant or may revoke a license to practice Chiropractic in this State or may cause a licentiate's name to be removed from the records in the office of the clerk of Superior Court upon any of the following grounds, to-wit: The em-

ployment of fraud or deception in applying for a license, or in passing an examination provided for in this Act; habitual intemperance in the use of ardent spirits or narcotics, inability or manifest incompetency or flagrant immorality. (b) Any person who is a licentiate or who is an applicant for a license to practice Chiropractic against whom any of the foregoing grounds for revoking or refusing a license is presented to the Board with a view to having the Board revoke or refuse to grant a license shall be furnished with a copy of the complaint, and shall have a hearing before said Board in person or by attorney, and witnesses may be examined by said Board respecting the guilt or innocence of said accused. (c) Said Board shall have authority to administer oaths, take affidavits, summon witnesses and take testimony as to matters pertaining to their duty.

#### SECTION 9.

Said Board may at any time within two years of the refusal or revocation or cancellation or registration under this section by majority vote, issue a new license or grant a license to the person affected restoring him to or conferring upon him all the rights and privileges of and pertaining to the practice of Chiropractic as defined and regulated by this Act. Any person to whom such have been restored shall pay to the secretary-treasurer the sum of \$25.00 upon issuance of a new license.

#### SECTION 10.

Every person who shall receive a license from the Board of Chiropractic Examiners shall have it recorded in the office of the Clerk of Superior Court of the county in which he resides and shall likewise have it recorded in the counties in which he shall subsequently remove for the purpose of practicing chiropractic.

#### SECTION 11.

(a) All examination fees received by the State Board of Chiropractic Examiners under this Act shall be paid to the Secretary-Treasurer of said Board, and the said treasurer shall place said money so received in a fund of the State Board of Chiropractic Examiners for defraying their expenses in carrying out the provisions of this Act. (b) The secretary-treasurer shall keep a true and accurate account of all funds received and all vouchers issued by the Board.

(c) The members of said Board shall receive a per diem of \$10.00 for each day during which they shall be actually engaged in the discharge of their duties and mileage at the rate of three cents per mile for each mile necessarily traveled in going to and from meetings of said Board. (d) Such per diem and mileage and such other incidental expenses necessarily connected with said Board shall be paid out of the fund of the State Board of Chiropractic Examiners and not otherwise.

#### SECTION 12.

The treasurer of said Board shall give Bond in such sum and with such securities as the Board may deem proper. Upon sufficient proof to the Governor of the inability or misconduct of a member of the Board said member shall be dismissed and the Governor shall appoint as his successor some licensed Chiropractor practicing in this State.

#### SECTION 13.

Persons licensed to practice Chiropractic under the laws of any other state having equal requirements of this Act may in the discretion of the Board be issued a license to practice in this State without examination upon payment of a fee of \$50.00.

#### SECTION 14.

(a) It shall be unlawful for any person to practice Chiropractic in this State unless they shall have first obtained a license as provided in this Act. (b) Any person who shall practice or attempt to practice Chiropractic without a license, or any person who shall buy or fraudulently obtain license to practice Chiropractic, or shall use the title Chiropractor, D. C., or any word or title to induce belief that he is engaged in the practice of Chiropractic without first complying with the provisions of this Act, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than \$100.00 nor more than \$500.00, or by imprisonment in the county jail for not less than thirty days nor more than one year, or both, at the discretion of the Court. All subsequent offenses shall be punished in like manner. Nothing in this Act shall be construed to interfere with any other method or science of healing in this State.

#### SECTION 15.

All Acts or parts of Acts in conflict herewith are hereby repealed.

#### SECTION 16.

Whereas an emergency exists this Act shall take effect and be in force from and after its passage and approval.

#### ANALYSIS OF HOUSE BILL NO. 1.

By Owens Johnson, Attorney for the Medical Association of Georgia, Atlanta, Ga.

#### As to Section 2:

The second section of the Act requires the Governor to appoint "from a list of six or more names to be submitted to him by the Georgia Chiropractic Association." The Governor is deprived of all discretion. He is obliged to appoint whomever "The Georgia Chiropractic Association" says appoint, regardless of questions of moral character, professional standing or educational qualifications. Who is "The Georgia Chiropractic Association?" We do not know. It may be a close corporation of only six persons, or less. For aught that the Act insures, they may be men and women without moral character, without standing in their respective communities and without the least fitness or qualifications to diagnose and treat human disease. It ought to be made the Governor's duty to inform himself and select worthy and qualified appointees; but certainly he ought not to be deprived of all discretion and compelled by the Act to submit to being held up and made to appoint an unfit Board.

#### As to Sections 4 and 5:

The chiropractors ask to be licensed to diagnose and treat human diseases. They ask that the health and physical well-being of the people be placed in their hands to the same extent and with the same freedom of license as with the medical profession.

Let us understand at once that men and women are not licensed to diagnose and treat human diseases for their own selfish purposes; but rather for the public good. Then why should not every person who is licensed and sent out with a commission to practice healing have the very best possible qualifications?

The medical practitioners are held to very high standards. There is no earthly reason why chiropractors should not be required to make the same preparation before starting out to practice. Sections 4 and 5 should be so amended as to require chiropractors to meet reasonable standards.

#### As to Section 7:



Section 7, as it stands in the bill, would legalize the chiropractors now practicing in the state in violation of law and gives them license to diagnose and treat disease absolutely without requiring any sort of qualification whatever. They are not required to have moral character; they are not required to have professional character and standing; they are not required to submit to any examination. They may be ignorant, disreputable, even criminal, and yet, if the Act is passed with section 7 as written, they are turned loose free to practice and prey upon a public unable to distinguish and discriminate between persons calling themselves "doctors."

As the law stands now, these so called chiropractors, not meeting the requirements of the law regulating the medical profession or the law regulating the practice of osteopathy, they are violating the law against practicing medicine without license. Section 7, as written, will legalize them, without requiring them to be in the least qualified.

#### As to Section 8:

The law regulating the practice of medicine provides, amongst other things, that a doctor shall have his license revoked in case of his conviction of a crime involving moral turpitude, as well as for a number of other crimes and immoral acts. Not so this Act regulating the practice of chiropractic. A chiropractor may rob an ignorant and confiding patient; he may steal; he may be a common cheat and swindler; he may be convicted of violating the Opium Act or the Harrison Narcotic Law; he may be guilty of procuring a criminal abortion; but that will not affect his right to practice his healing profession.

Surely the sponsors for the chiropractors cannot think them so low in the moral and professional scales that to require of them that they be honest and law-abiding men and women might exclude them from practicing their profession.

It ought to be little enough to require that a chiropractor shall have his license revoked for the same offenses that will deprive a medical practitioner of the right to practice his profession.

#### Again as to Section 8:

The law provides that in the case of a medical practitioner whose license is refused or revoked, he shall have an appeal to a jury in the Superior Court. A chiropractor who has incurred the displeasure of his Board ought to have the same privilege.

#### As to Section 9:

Section 9 of the Act provides that any chiropractor whose license has been refused or revoked may apply and have it restored at any time within two years upon the payment of a fee of \$25.00. As the license must originally have been refused or revoked either for lack of qualifications or for improper conduct, such a person before being licensed and admitted to practice, should be required to produce evidence of good moral character and to possess the qualifications prescribed by the Act.

#### As to Section 12:

Section 12 of the Act provides that a member of the Board may be dismissed and a new member appointed in his place without requiring that the accused member be given notice of the charge against him and an opportunity to be heard in his defense. This is a clear violation of the State and Federal Constitutions, in their guarantee of "due process of law." If the Act is passed this defect ought to be cured by an amendment affording the accused member "due process of law," that is, proper notice and opportunity to be heard in his defense.

#### As to Section 14(a):

Section 14(a) makes it unlawful to practice chiropractic without the license provided for in the Act. It ought to be made unlawful also to practice without the qualifications prescribed by the Act and without bona fide compliance with the requirements of the Act. One may obtain the license fraudulently, and in that case he could practice without being guilty of crime. It ought to be unlawful to practice in that case and the Act should be amended in that respect so as to prevent practicing under a fraudulent license and without the qualifications prescribed and compliance in all respects with the requirements of the Act.

### DEAN CASE TO BE CARRIED TO SUPREME COURT.

Judge Thomas Upholds Claims of State in Injunction Proceedings.

#### Says Medicine Act Is Valid.

Dr. Dean is Permitted To Practice While Case Is Before High Court.

The decision of Judge W. E. Thomas, of the Southern circuit on the injunction proceedings brought against Dr. Clay L. Dean, chiropractor, through the office of Solicitor General Hay by county health commissioner, Dr. G. M. Anderson and a number of physicians, sustains the contentions of the state which sought to enjoin Dr. Dean from the practice of his profession on the ground that he was violating the State medicine practice act.

Upon filing a bill of exceptions, Dr. Dean will be permitted to resume his practice until the questions raised are determined by the supreme court. Judge Thomas' decision carries this provision. The bill of exceptions will be filed at once, according to Judge Robt. L. Shipp, of Shipp & Kline, who represent Dr. Dean.

Judge Thomas' decision follows:

The State of Georgia as plaintiff instituted this action against the defendant Clay L. Dean, complaining that the defendant has been and is now maintaining a public nuisance in the practice of his profession, in that, without having obtained a license to practice medicine from the State Board of Medical Examiners, he did engage in the practice of his profession as a chiropractic in the active practice of medicine as defined under the terms of the Act of the General Assembly approved August 18th, 1913, the



penalty for doing which is that of a misdemeanor.

That Act provides that it shall be a crime under the laws of the State, "to hold oneself out to the public as being engaged within this state in the diagnosis, or treatment of disease, defects or injuries of human beings, or, the suggestion, recommending or prescribing of any form of treatment for the intended palliation, relief or cure of any physical, mental or functional ailment or defect of any person with the intention of receiving therefor any compensation, or the maintenance of an office for the reception, examination and treatment of any person suffering from disease, defects or injuries of body or mind, or attaching the title "doctor," either alone or in connection with other words, etc. Without first obtaining a license to practice medicine from the State Board of Medicine examiners."

The defendant by his answer admits that he has no such license from the Board of Medical Examiners, and denies that he has used or intends to use any drugs in his treatment, but avers that he has applied the use of healing arts in the practice of his profession which the proof shows involves the diagnosis and treatment of disease, defects and injuries to human beings and the suggestion, recommendation and prescribing of treatment for the intended palliation, relief and cure of physical and functional ailments and defects of individuals, with the intention of receiving compensation therefor, and the answer as well as the proof discloses that the defendant in years gone by has not only done so, openly, continuously and publicly, but that he maintains an office, for the reception, examination, and treatment of persons suffering from disease, defects and injuries of body and that the title of doctor was carried by him either alone or in connection with other words, indicating that he was engaged in the treatment or diagnosis of disease, defects and injuries of human beings.

The defendant's answer as well as the proof in the case concludes that in the future as well as in the past he intends to maintain his office and practice his profession as stated; openly, publicly, continuously and persistently without obtaining a license from the Board of Medical Examiners of

Georgia as provided under the terms of the Act mentioned, "in utter and wilful disregard of the statutes," and he denies in so doing, that he is guilty of a public nuisance.

A nuisance is defined to be "anything that worketh hurt, inconvenience or damage." In the case of the State vs. Crawford, 28 Kan. 726; 42 Amer. R. 182, the court declares that:

"Every place where a public statute is openly, publicly, repeatedly, continuously, persistently and intentionally violated, is a public nuisance." If the practice by the defendant of his profession as stated and the maintenance of his office in violation of the law constitutes a public nuisance, equity will intervene at the instance of the State itself to abate it.

The defendant contends, however, that the said act of 1913 is unconstitutional and void, insofar as it attempts to interfere with the defendant in the practice of his profession without the use of drugs, and in support of this contention: State vs. Biggs, 133 N. C. 729; 98 Ann. S. R. 731; State vs. Liffering, 61 Ohio State 39—76 Ann. S. R. 358; Bennett vs. Ware 4th Court of Appeals 293; Ausbrooks vs. State 147 Ga. 407; argue with force in support of that contention.

On the other hand the weight of authority seems to be in favor of the Constitutionality of the Act in question as an exercise of the police power of the State in the interest of the public health. Among the authorities sustaining the constitutionality of the Act of the General Assembly, similar to that under review is: The Commonwealth vs. Zimmermann, 221 Mass. 184; 108 N. E. 893; Ann. Cas. 1916 A. Also Medical Examiner vs. Frenor, 47 Utah 430; Ann. Cas. 1917 E—1156. People vs. Allcut, 102 N. Y., S. 678.

Just precisely what shall be the law in this State upon the question submitted, seems to be undecided. It seems proper then that the Judge should rule upon the legal questions mentioned as the controlling feature of this litigation and without the exercise of discretion in such cases, and let the question be decided.

For this purpose and for this reason the contentions of the State as herein indicated are held to be sound and the defendant is restrained as prayed, with the condition,

(Continued on page 78.)

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## DEAN CASE TO BE CARRIED TO SUPREME COURT.

(Continued from page 75.)

however, that when the defendant files a bill of exceptions to this ruling, this judgment shall be thereby superseded, pending the case in the Supreme Court, and the defendant be allowed to continue in the practice of his profession, until the questions raised in the record are determined by the Supreme Court.

So ordered, at Moultrie, Ga., this July 27th, 1920.

W. E. THOMAS,  
Judge, Superior Court,  
Sou. Judi. Cir. of Ga.

(From Moultrie (Ga.) Observer.)


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OF THE

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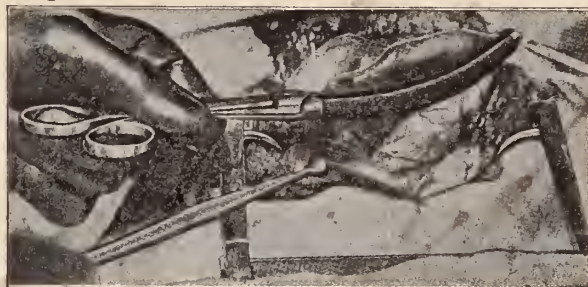
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VOLUME X

ATLANTA, GA., SEPTEMBER, 1920

No. 4

### ORIGINAL ARTICLES

#### SOME DIAGNOSTIC PROBLEMS OF THE CHEST.

E. C. Thrash, M. D., Atlanta, Ga.

So many of us suspecting no disease to be tuberculosis until progress and development have proved it so, causes more suffering and deaths probably than almost any of our derelictions. When the reverse of this comes true and all obscure chronic diseases are suspected to be tuberculosis until a diagnosis is made, and this diagnosis made early, a long stride will have been made in the conservation of health and the saving of life.

While the ability to diagnose pulmonary tuberculosis at the very earliest possible moment is highly important, there are other problems in the chest which often confront us that are equally so, and the writer will attempt to cover as much of the subject as time will permit.

Because of the fact that lobar pneumonia is usually a primarily haemic infection and the involvement of the lung takes place later is the cause of many a mistaken diagnosis, the loss of many a sound appendix, the opening of many normal gall bladders and the waste of much quinine in an attempt to cure an unexisting malaria. Pneumonia often develops and runs its course without the lungs becoming involved at all, and frequently the lung involvement is delayed. I have often found pneumococci in the blood several days before any evidence of pneumonia could be found in the chest, and later a consolidation of the lungs would take place and a typical, classical case of pneumonia would follow. On the other hand I have grown the diplococcus from the blood and waited day after day for evidence to appear in the chest, and

the patient would get well without this occurring. I have seen two cases of this kind in the past two months. So much has been learned about pneumonia in the past few years that the subject will have to be re-written completely. A blood culture should be made of every acute fever with a sudden and violent onset. This will often clear up a disturbance, the symptoms of which might otherwise lead us far afield.

The inspiration pneumonias in marked distinction to the haemic ones are usually bronchial in character, and result from some previous infection of the respiratory tract as measles, influenza, etc., and the germ usually is the streptococcus. These types are the most problematic and the most difficult to handle. Serology has been of great value to us in getting our bearing, and the early typing of pneumonia will often enable us to bring about cures whereas a neglecting of such procedure might prove disastrous. While these earlier types may not be primarily haemic they usually become so as the disease progresses, the disturbance in the lungs then being only a local manifestation of systemic infection.

Some of the most puzzling problems that have confronted me in studying the chest have been physical signs of tuberculosis without symptoms, symptoms of tuberculosis without physical signs and symptoms and signs which may simulate many diseases but cannot be definitely attributable to any. Many a case will show all the signs of infiltration in one or the other of the apices, or maybe both, while the patient is in the sitting position and you will be almost ready to make a notation on the case as being unquestionably tuberculous, but after the patient stands and the chest is again carefully gone over, you are surprised at the findings and won-

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



der how you got the results while the patient was sitting. This is especially true where the patient drops down loosely in the chair and allows the abdominal viscera to press upon the lungs causing them to crowd upon the apices to a degree sufficient to produce the physical signs that mislead you. Definite conclusions in doubtful cases should never be drawn while the patient is being examined either lying or sitting if standing is practical. If one has a doubtful case at the bedside and the patient is not able to stand, he should at least sit upon the side of the bed and be supported by an assistant until the examination is completed.

Positive physical signs at the apices of the lungs are quite often found where there will be no symptoms to suggest tuberculosis. One usually has an x-ray made to clear up the situation and almost invariably the x-ray findings are negative. There is so little porous lung tissue at the apex of the lungs to produce illimination as compared with the dense tissue around this area to produce opacity that the x-ray quite often will not show a slight involvement while the physical signs may be apparent. Being aware of the fact that many normal chests show signs of apparent pathology at the apex we may be inclined to feel that since the x-ray does not bear out our findings that we may be in error in our judgment as to the trouble being tuberculous. In view of the fact that I have so often found symptoms to bear out my physical findings when the x-ray would show nothing in the apex, I have come to rely more upon the physical examination and the study of the apices of the lungs than I have the x-ray picture. So often I have made repeated examinations of the chest and have been fully convinced that there are physical signs of involvement in the apices, regardless of the x-ray showings, I am constrained to feel that there is a healed or arrested lesion there which does not produce symptoms.

It is just to the patient in these cases, although you may be positively convinced that there is an arrested tuberculous lesion of a mild degree in a small area to give him every assurance that there are no symptoms, that he needs no treatment and that he is

probably no worse off than the majority of the human race. Even though one has had an active process in the past sufficient to produce physical findings at present, I doubt if it is wise to treat these cases as tuberculosis, if there are only slight physical findings without symptoms. If the patient feels well and strong, his appetite is good, he is able to do his work, does not tire more easily than usual, rests well at night, gets up in the morning refreshed and everything is going well with him in every sense of the word, he is to all intents and purposes a well man, and he should not have his faith shaken in himself by telling him he is sick. He is certainly in as good condition as the doctor could put him and he should continue his activities without upsetting his mind in calling his attention to the fact that he is suffering from tuberculosis that needs treatment.

Many sufferers come into my office who have lost in weight, run a temperature, have a rapid pulse, and may or may not have a slight cough, but tire easily, they tell me they have lost their pep, are without energy and in fact have all the symptoms of tuberculosis. I expect until they are undressed and I begin the examination that I am certain to find physical signs and make a clear-cut diagnosis without any trouble. After a most careful examination I may fail to find a physical sign that may enable me to say positively that I have a case of tuberculosis. I have been able after long observation and study of these cases to say that they were tuberculous only by exclusion, not finding anything diagnostic in any examination. These are usually localized miliary types with the tubercles still closed. After waiting patiently one will later begin to hear rales and infiltration will begin to take place and the tubercle bacilli may appear in the sputum.

I have a case in mind where tuberculosis was diagnosed two years ago and correctly too. A good clinician at the end of this time made a careful examination and said he found no physical signs that would warrant him in making a diagnosis of tuberculosis. There would be times when this patient would show frank evidences of tuberculosis

from physical examination, while at other times no physical signs could be found.

I have checked up in recent years on practically all of my chest examinations with the x-ray, and I have found many surprises. To illustrate, I have made out a frank case of tuberculosis, for instance, at the apex of the right lung with no apparent disturbance in the left and the x-ray would show marked shadows involving a large portion of the left lung, and practically no evidence of disturbance in the right. I may not have been in error in my conclusions which were drawn from the physical examination. I have made a careful study of x-ray shadows and these shadows are quite feeble in recent exudates. That is, a partial pneumonic condition of the lungs may scarcely be apparent from an x-ray examination whereas a chronic fibrosis will cast a shadow where there may be no physical signs to show the existence of the fibrosis.

I should like to emphasize here that one should not doubt his physical findings if he has gone about his work carefully and knows whereof he stands, simply because the x-ray does not corroborate these findings. I will state on the other hand that the most careful examination often will fail to reveal exudates and deposits in the lungs whereas the x-ray may show them up quite clearly. There is no part of the body where the x-ray is so valuable as a diagnostic agent as in the chest unless it would be bone study.

I have come to the conclusion that every physical examination of the chest where the patient is really sick should be checked up with the x-ray, and I wish to say most emphatically, in fact I would like to make this the most emphatic statement of this paper, that no person who is not well versed in the physical examination of the chest should make an x-ray and give the patient a report as to what the pathology of the chest may be. A large portion of the public, unfortunately, have become imbued with the idea that all that is necessary is to have an x-ray made of the chest and they will know then exactly what conditions exist there. I tell these people that in ten days any intelligent person can prepare himself to make a most excellent picture of the chest, but a clinician

after working upon diagnostic methods for a lifetime is still doubtful of himself when it comes to interpreting findings and making a correct diagnosis. I invariably tell these people that I will examine them and if I deem an x-ray necessary as a part of that examination it will be made, and will use it or discard it as to whether it does or does not give me any information as a factor in arriving at a conclusion.

Our latest two epidemics of influenza have presented quite frequently two disturbances that have been exceedingly difficult to differentiate from tuberculosis. These are the haemic infections that these influenzas have left in their wake and the endocardiac disturbances without valvular lesions. Both of these disturbances have practically the same symptoms of tuberculosis, and the fact that the physical signs of tuberculosis are not present does not enable one to rule out the latter disease. A blood culture will often clear up this problem, both in the endocardial disturbance and the haemic infection, but if the culture is negative one is still confronted with the problem. A careful study of the x-ray picture and the past history of the patient will often throw much light upon these cases. The fact that the x-ray does not show pulmonary infiltration is of no special value, because tuberculosis exists where the x-ray will show no evidence of it. But the right of the heart is quite often rather decidedly dilated, and there is rather a clear-cut line of demarkation between the pulmonic and heart shadows. The great majority of pulmonary tuberculosis will show mediastinal disturbances in the way of adhesions of the pulmonic structures to the pericardium and hylus infiltration. Furthermore, when a patient tells you that he was perfectly sound and well, and able to do his work without any physical disturbance until he was suddenly attacked with influenza, it would naturally suggest to you some other disturbance than tuberculosis, because the onset of tuberculosis is rarely sudden. It comes on insiduously and slowly, the patient being infected for quite a long period before he begins to cough and the decline is slow. When these cases are studied carefully it will be noted that a faint



murmur will soon begin to appear at the apex of the heart and is transmitted posteriorly to the angle of the scapula. In fact, the majority of these cases which I have studied will show a murmur with the first sound of the heart transmitted to the angle of the scapula before it could be heard at the apex.

I have been uncertain in these patients often as to whether they had a cardiac or only a haemic infection or whether the disturbance was tuberculous, when after studying them for a few months, I would begin to hear murmurs which would enable me to decide conclusively that I had to deal with infection involving the heart valves. These lesions begin primarily with a focal infection such as that of tonsils, lungs, teeth, uterus, influenza, pneumonia, etc., producing first a haemic infection, then an endocarditis and finally inroads are made upon the valves and insufficiencies will appear. Valvular disturbances are never primary.

Syphilis was formerly a disease to be reckoned with in muddying the water in an effort to make a diagnosis of tuberculosis, but laboratory methods have practically eliminated this disease as a factor in bringing about confusion. But in the study of the lungs, although a positive case of tuberculosis may be detected, syphilitic should not be forgotten, because there are no two diseases that so frequently go hand in hand as these, and when the syphilitic infection is cleared up the tuberculous process yields to treatment promptly and rapidly.

In closing this essay I will say that the study which I have put upon the chest during my medical career has brought me greater reward in diagnostic acumen than any other work which I have done. No part of the body gives such valuable returns for the study put upon it as the chest, and unfortunately it is the least studied of all the other body areas.

#### DISCUSSION ON THE PAPER OF DR. E. C. THRASH.

*Dr. Arch Elkin, Atlanta.*—I may have misunderstood Dr. Thrash in one sentence of his paper where he said that a man or woman may have physical signs in the lungs without symptoms, and if so, he would not inform them of that fact, but he would let them go away and probably they would recover

as 80 per cent. of tuberculosis patients do without seeing a doctor.

Personally, I believe that when physical signs are found they should not only be noted, but the patient should be informed of them.

In regard to the x-ray findings as compared with the physical examination, I have recently had an opportunity to study some 17 cases of children that were intensely interesting. Dr. Hoke, of Atlanta, who has charge of the Crippled Children's Hospital, invited me to examine some 30 children at the Children's Hospital to determine whether or not Pott's disease and tuberculosis of the hips and knees were correlated with his work, and whether or not these cases were pulmonary. Some of the children were as young as two and three years of age, and Dr. Thrash in his paper brings very vividly to my mind the results of the preliminary work I have done there in connection with the x-ray.

I spent something like three weeks going over more than a dozen children, and these children I have had x-rayed with stereoscopic and flat plates, and I have tried to be very exhaustive in my examinations of them. These children are all manifestly tuberculous, so far as bone lesions are concerned. They are either Pott's cases or they are hip or knee cases. There is no question about that. Dr. Hoke wanted me to determine whether or not they were pulmonary or had bronchial gland tuberculosis in connection with bone tuberculosis, and whether immunization with tuberculin would help him to get results in a surgical way. I found in four weeks study that 100 per cent. of these cases were pulmonary; that they had either active or latent pulmonary tuberculosis. One child, only three years of age, has double hip tuberculosis, but physical examination discloses nothing in the lungs. The chest is not entirely normal; it is abnormal, and at the same time you could not say it was actively tubercular. The x-ray shows the child has calcified glands that are prominent. It also shows that the child has double hilus infiltration. It has studded areas of fibrosis through its lung, showing conclusively almost that the immunity established probably by the primary hip infection which the child has (double hip infection) is secondary to the pulmonary infection, and nature has built up enough resistance in this child to keep it alive.

*Dr. R. H. Stovall, Macon.*—I have had occasion to examine quite a few cases recently and have had the finding checked up by the x-ray laboratory, and I have come to the conclusion that we cannot rely on the x-ray to a large extent in the cases, except to confirm the diagnosis. I do not believe any man, who is not an absolute expert (I don't claim to be such), can tell, if he did not have the history before him, or had taken a careful history of the case himself, both past and present, by physical examination alone whether a patient had active incipient tuberculosis or not. I think we have to consider all findings and put them together. We should consider the patient's present condition. I have not time to take up all of these things and state what they are, but when a man has started to go down hill, you have got to take into consideration that fact and make a careful examination of his chest. If you find any signs, you have to check them up with the x-ray in connection with the history and present condition. Almost every case I have seen, whether the patient had tuberculosis or not, according to the x-ray, has come back with a diagnosis of tuberculosis. Probably that patient has had tuberculosis some time or other.



*Dr. L. C. Allen, Hoschton.*—Recently we had a married lady about thirty years of age, the mother of three or four children, come to us with a cough which she had had about three months. It was not a very marked cough, but one that gave her some trouble. She had lost a good deal of flesh; she was running an afternoon temperature of from one to two degrees. She had a low blood pressure and a marked tremor. Repeated examination of the chest was absolutely negative, and we could not decide whether she had tuberculosis or hyperthyroidism. We put her on liberal treatment and improvement was marvelous. She gained about a pound a day and is now practically well under about a month's treatment.

I would be glad if Dr. Thrash could give us an idea how to distinguish between hyperthyroidism and incipient tuberculosis.

*A Member.*—It has been my experience in connection with considerable pulmonary work which I have done that the x-ray picture is not to be depended on in all cases. Dr. Thrash has emphasized the point that in the earliest cases we do not get an x-ray picture which shows anything definite.

Dr. Thrash called attention to the importance of symptoms as distinguished from the physical signs. If the general practitioner will rely upon symptoms in making a diagnosis of incipient pulmonary tuberculosis, he will be much safer than if he depends upon the ear or the x-ray.

Dr. Elkin referred to the occurrence of pulmonary tuberculosis in its relation to tuberculosis in other parts of the body. I am not sure that pulmonary tuberculosis does not antedate the complicating bone disease. One author has rather definitely proven from a study of children that the portal of entry of tuberculosis is through the lung. How it gets there is another question. I think possibly a large part may be due to the gastrointestinal tract and that the tubercle bacillus is deposited in the lung. It has been demonstrated that the portal of entry is usually in the upper part of the lung.

*Dr. E. C. Thrash, Atlanta (closing the discussion)*—In answer to Dr. Allen's question, I will read the last paragraph in my paper. I say that because the chest is grossly neglected in medical schools, men after they leave the school simply pass it up and say, "Well, I do not know what the trouble is; I will send for another doctor." Gentleman, it is well worth while to study the chest very carefully and very thoroughly.

As to the remarks of Dr. Elkin, he and I are absolutely agreed regardless of what he says. (Laughter.) I did not say positively that if patients have physical signs without symptoms they should not be told of it. I was speaking of those cases in which we are almost persuaded ourselves that we have a tuberculous process to deal with, and yet we are not absolutely sure. We may be in error, and if you tell a patient he has physical signs without symptoms he will get excited over nothing. Probably he has a tuberculous process which has healed and he will not have any more disturbance. If you tell a man once he has tuberculosis, you put a load on him that is heavy to carry as long as he lives.

One of the gravest questions we have confronting us is to say that a man has or has not a lesion that will follow him throughout his whole life, and be not only a menace physically but a burden to him mentally.

There is no such thing as incipient tuberculosis from the standpoint of the clinician. Tuberculosis

is complex from the deposit of one tubercle to a series of tuberculous processes that produce death.

Dr. Stovall said we cannot make a diagnosis of incipient tuberculosis. This is true. If you have a tuberculous process sufficiently advanced to make a diagnosis, it is no longer incipient.

Dr. Allen's question cannot be answered. You have simply got to take your case and study it from every angle and observe all symptoms. You have to find out what the nervous state of the patient is; you have to make a physical examination and study the case in every way you possibly can, and even then you may finally have to throw up your hands and say, "I do not know." There are some cases where no man on earth can differentiate Grave's diseases from tuberculosis; that is to say, he cannot say this is Grave's disease and that is tuberculosis. There are some questions we cannot answer, some diagnoses we cannot make. Under all circumstances we have to do the best we can.

### \*THE SURGICAL TREATMENT OF EMPYEMA.

Three Types of Empyema. Disiderata in Treatment. Differences in Opinion on Certain Questions. Discussion of These Questions. Conclusions.

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The surgical treatment of empyema has recently undergone much discussion. Previous to the epidemics of respiratory diseases that occurred during the past two years, there was one type of empyema, and it's treatment was a cut and dried subject. Occasional articles appeared, but these articles caused very little interest, for there was little difference of opinion in regard to the principal features of the treatment, viz: when, where, or how to operate. Ubi pus, ibi evacua was an absolute dogma here as elsewhere. Drain promptly, drain freely, drain in the most dependent part were the cardinal points in treatment, principal emphasis being placed on the promptly. The last development in the surgery of empyema that occasioned any great interest was the operation of Lilienthal, who made an extensive intercostal incision, separated the ribs widely, and determined by inspection and palpation whether there were any walled off abscesses, breaking up the adhesions with his hand when any were found, and closing upon the lung expanded by means of positive gas-oxygen pressure.

We now recognize three distinct types of acute empyema, and in considering the treatment of empyema, it is necessary to different-

iate between the three types. The empyema following lobar pneumonia, the so-called metapneumonic empyema, is radically different from the empyema complicating the streptococcus hemolyticus pneumonia, and each of these differs from that following the post-influenzal pneumonia.

These types of empyema differ bacteriologically, in time of appearance, in the character and quantity of pus, in incidence, and in the frequency and nature of complications.

The empyema following lobar pneumonia is a pneumococcic or a mixed pneumococcic pus. It is distinctly post-pneumonic in time of appearance, usually being indicated on the chart by a rise in the temperature occurring after the crisis. The pus is a thick, fibrinous pus, having the mucinous appearance so characteristic of the pneumococcus, and a line of upper fluid level is usually readily shown by physical examination and the X-Ray. It is frequently complicated by fairly large lung abscesses, but not often otherwise. It occurs in approximately ten per cent of the cases of lobar pneumonia.

The empyema complicating the streptococcus hemolyticus pneumonia is a streptococcus hemolyticus pus in ninety per cent of the cases and is a mixed pneumo-streptococcus pus in the majority of the others. It is not a post-pneumonic condition, fluid frequently appearing in large quantities during the first forty-eight hours. There is no interval of normal temperature on the chart. The lung is still extensively involved, on both sides commonly, when the empyema is discovered. The fluid is at first a thin, reddish-grey, containing streptococci and small flakes of fibrinous material. It usually becomes thick and purulent between a week and three weeks after first appearance. It is a massive exudate and the amount seems to be limited only by the capacity of the pleural cavity. It occurs frequently as an encysted empyema, which seems peculiar when we think of the tendency of the streptococcus to spread diffusely in cellular tissue, breaking readily through the leucocytic barriers which stop the staphylococci so effectively. It is commonly complicated by numerous small peri-bronchial ab-

cesses, but not frequently by large lung abscesses. It is frequently complicated also by metastatic abscesses in joints, cellular tissues, peri-cardium, etc., the streptococcus hemolyticus being a renowned traveler. It occurred in approximately thirty-four per cent of the cases of streptococcus hemolyticus pneumonia during the epidemic of 1918. It had an average mortality of 30.2 per cent in the cases occurring in the camps.

The third type of empyema, that following the post-influenzal pneumonia, resembles that following lobar pneumonia much more than it resembles the streptococcic type. Bacteriologically, it is usually a pneumococcic or a mixed pneumococcic pus. Rarely it is a streptococcic pus. It usually appears late, the pneumonic condition having improved very much before it's appearance. The pus is a thick, fibrinous pus. It presents an upper fluid level that can be readily detected or, in other words, it is not a massive exudate. It is frequently complicated by small lung abscesses, seldom by large ones, and occasionally by metastatic abscesses. It showed a mortality of approximately twenty per cent during the last wave of the influenza epidemic.

Regardless of the type of empyema, the desiderata in the treatment are the same. It is desirable that the institution of the treatment shall not be productive of shock, that the treatment shall interfere as little as possible with the functioning alveolar surface, that the absorption of toxins shall be stopped and the lung given an opportunity to expand, and that the patient shall be returned to his normal activities as early as possible. There are differences of opinion as to how these desiderata can be best accomplished, the greatest argument being upon the following questions:

1. Shall we operate early or late?
2. What is the value of repeated aspirations with or without the injection of an antiseptic?
3. Shall we irrigate? If so, shall we use Dakins or a less irritating solution?
4. Shall we drain by negative pressure, or by rib resection and open thoracotomy?

It is unfortunate that the operation done immediately upon the discovery of an



empyema should have been termed "early" and the operation performed after improvement in the pneumonic condition should have been termed "late." If the wording of the first question is changed, and the argument based upon whether we shall operate upon an empyema while the patient is suffering from an extensive pneumonia, or wait until the pneumonic condition improves before operating, there will be less disagreement. This question is applied particularly to the streptococic type of empyema, but applies to all types alike when the wording is changed as above. The advocates of an "early operation" claim that an early operation is necessary for the relief of the mechanical embarrassment to respiration and to prevent absorption of toxins. The mechanical embarrassment is relieved fully as well by aspiration and the absorption of toxins is also prevented to a great extent. In addition, in the streptococic type, the fluid is at this time serious, and many cures have been effected by aspiration alone. The "early operation" is an operation based, as to its time, upon the time of discovery of the empyema and not, as operations properly should be, upon the condition of the patient. Usually, when the empyema is discovered in the streptococic type, the lungs on both sides are extensively involved, respirations are forty to seventy per minute, and the patient is cyanosed and suffering from air hunger. In regard to the so-called "early operation" in empyema complicating streptococic pneumonia, the empyema commission reported: "Immediate rib resection or thoracotomy with drainage is dangerous, meddlesome surgery." As the empyema complicating lobar pneumonia and post-influenzal pneumonia are usually post-pneumonic, a late operation in the streptococic type corresponds to an early operation in these types.

At Camp Sherman<sup>1</sup>, the medical service experimented with aspiration in the treatment of streptococic empyema, being discouraged by the results obtained after early operation. In the beginning, they injected 2% formalin-glycerin solution after aspiration, as first introduced by Murphy over twenty years ago. This resurrection was as unpopular as that of Banquo's ghost. They

then practiced simple aspiration, with results as satisfactory in every way as those obtained with formalin-glycerin solution. The medical service decided that aspiration was a valuable palliative measure when used during the pneumonic process, but that when frank pus had formed—about the third week usually, and the pneumonic condition had improved—it should be evacuated according to the rules applied to the treatment of accumulations of pus elsewhere in the body.

The third question is a very active one. The advocates of Dakin's solution are devotees, and to them its opponents are infidels. Many favorable results have been reported after the use of Dakin's, but these results do not seem to be better than the favorable results reported from the dry method or with physiologic saline solution. On the other hand, many reports are available in which it is stated that, after beginning the use of Dakin's solution enthusiastically, and with much faith, unfavorable results obtained by its use caused it to be abandoned for the dry method or for a less irritating solution. Dodge<sup>1</sup> reported a series of cases in which a comparison was made of the results obtained with Dakin's, with 2% formaldehyde-glycerin, and with physiologic salt solution. Five cases were irrigated with Dakin's, five were treated with 2% formaldehyde-glycerin, and eighteen cases were treated with normal salt solution. The ten cases treated with Dakin's and formaldehyde-glycerin were found, after several months, to have partially collapsed lungs and cavities of considerable size. They were subjected to secondary operations, and a thick layer of organized exudate was found enveloping the lung in each case. He did not state his results with the salt solution, but abandoned the use of all irrigating solutions except physiologic salt solution. Warnshuis<sup>1</sup> reported the receipt of sixteen cases of empyema at Base Hospital No. 99. Eleven cases were still active four to eleven weeks after operation, and each of these eleven had been treated with Dakin's. The other five cases, that were healed, had not been treated with Dakin's. It should be remembered that a well drained empyema will heal within three to six weeks without irrigation.



Ballin<sup>2</sup> reported operations on seventy-nine cases of empyema; thirty were treated with irrigations of surgical solution of chlorinated soda with eight deaths, and forty-nine were given the dry treatment with three deaths. Our experience with Dakin's solution, while in charge of the surgical service of the U. S. Naval Hospital, Paris Island, S. C., as an irrigation after operation for empyema was very limited. It was used on our first case, and he died. Physiologic salt solution was then used in all cases when an irrigation was employed, with very satisfactory results. When an empyema is drained adequately, the temperature immediately drops to normal and continues below 99.6° F during convalescence if no complication arises. The absorption of toxins is immediately stopped and a flow of exudate into the cavity takes place, having a tendency to flush the pleura toward the dependent drainage opening. Capps & Lewis<sup>6</sup> have shown that irrigation of the pleural cavity may cause death by reflex irritation of the vagus. It is logical to believe that a more irritating solution is more prone to produce such a result.

Many different methods of drainage under negative pressure have been brought forward as the last word in the treatment of empyema. Practically every negative pressure feature introduced recently has merely been a re-introduction of methods used in the surgery of empyema during the period of 1890 to 1900. Beulaud<sup>4</sup>, in 1890, introduced a large catheter into the chest through a trocar and produced negative pressure by the siphon action of a long rubber tube filled with pus. Perthes<sup>5</sup>, in 1900, inserted a rubber tube with a broad collar, after resecting a rib, and made this air tight by covering it with petrolatum and stretching it tight against the chest. He produced negative pressure by means of a water pump with a manometer attachment. Theoretically, the use of negative pressure embodies the application of those principles which we are accustomed to regard as ideal in the treatment of empyema. In practice it is difficult to secure an air tight joint, and once it is secured, the patient in rolling around may displace the tube. In three or four days the tubes

usually become sufficiently loosened by retraction of skin and other tissues to permit leakage. However, an analysis of Phillip's<sup>3</sup> report of the results obtained with the use of his apparatus are not encouraging. He reported sixteen cases. Two cases were cured in ten and twenty-one days respectively. Two apparent cures in twenty and ten days respectively, demanded re-application of his apparatus for re-accumulation of pus after the sinus had healed. Five cases, or 31.2%, died, and at the time of his report; nine cases, including the two who had a re-accumulation of pus, were still under treatment. Two of the patients displaced their apparatus and a leakage occurred. Phillips states that "Roentgenograms taken twenty-four hours after the apparatus has been applied show completely or very near completely expanded lungs." The re-accumulations of pus that took place in two of these cases reminds us that there is always a danger of the formation of pus pockets whenever two serous surfaces are brought intimately into contact, while infectious material exists between them. We see this happening daily in the abdomen.

An open operation with rib resection accomplishes drainage in the most satisfactory manner. The large size tube is not subjected to frequent obstructions and immediate expansions of the lung is not encouraged. Negative pressure may be applied at the end of three or four days to encourage lung expansion without the great danger of encouraging also the formation of pus pockets or a premature closure, as is done when negative pressure is applied immediately. Phillip's apparatus was used with a negative pressure of thirty to sixty millimeters of mercury. This seems to be too much. Normally intrathoracic pressure at the end of expiration is 4.5 and at the end of inspiration 7.5 millimeters of mercury less than atmospheric pressure. In any instance, a negative pressure of fifteen millimeters of mercury would seem to be sufficient, as it has been repeatedly demonstrated that the lung will expand and fill the cavity if it is sterile—the gradual air absorption being all that is necessary to produce a negative pressure.

**Conclusions:**

1. As local anaesthesia is less conducive to shock than general, empyema should be operated under local anesthesia.

2. The time of operation should be determined by the condition of the pneumonic process and not based upon such a fortuitous circumstance as the time of discovery of the empyema. Operate on the patient and not on the empyema. As a general rule, streptococcus hemolyticus empyema should be operated late and the other types early.

3. Aspiration is of value as a palliative measure when the pneumonic process is so extensive as to contra-indicate immediate operation. It sometimes cures when applied to the streptococci empyema while it is still fluid, but when frank pus has appeared, aspiration has no curative value.

4. The surgery of empyema is at present again passing through the period through which it passed during 1890 to 1904—the period of, and immediately following, the last influenza pandemic—with regard to negative pressure. No negative pressure method which is entirely satisfactory has yet been introduced.

5. The surgical treatment of empyema has not been materially advanced by the experiences of the past two years, no outstanding feature nor noticeably superior method of treatment having been introduced.

6. Open thoracotomy with rib resection continues to be the operation of choice in the treatment of empyema.

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**\*TREATMENT OF CANCER WITH RADIUM.**

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A few years ago in the Savannah meeting of the society I reported a number of Transfusions. So many of these cases were transfused late and without saving life that I was afraid later that a number of the members present who heard the paper, overlooked the few successful cases and only remembered the ones who died unimproved.

So in this hurried paper of fifteen minutes I must try and avoid telling of too many failures and contra-indications for fear that you will remember only these. Here however we have a great difference. In cancer—the more advanced the disease—the more willing a physician is to wish the case off to some one else, especially to some one who will attempt to help without operating, and often the worst cases give the most brilliant results.

The result is that we men who are working with radium are seeing the very worst cases—cases which have been neglected or which have already been operated upon, or which have been denied operative relief. To show that this is true—we know of course that there are far more cancers of the face and lip than of the uterus or penis. Yet in the past few months I have seen more cases of cancer of the uterus than any other type of cancer. I have had referred to me four cancers of the penis and only three cancers of the lip. Of the cancers of the eye lid referred to me I have had only one where there was any chance of saving the eye—while I have had three where I had to have the eye removed and two others with the eye already enucleated. The one which I obtained early, is, after six months, as clean and as free from all appearance of growth as a child's wart which has been conjured off by planting the pea under a brick. Of the three which were referred too late to save enough eyelid to protect the cornea, two are now apparently entirely healed and the third one is too recent to judge. Of the two extremely advanced cases, one is I think arrested, although the frontal and maxillary

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sinuses are gone and a tremendous cavity is present.

So it has been my misfortune during the past ten months that I have been using radium, to see very few early cases. Even with this being true I am becoming more and more of an enthusiast over the results obtained. Of course I realized that at best radium is but a hand maid to surgery, and that there are many cases where it would be criminal to use radium instead of operating. I do not think that radium should be used at all in cancer of the breast except in recurrent nodules. I do not think that it should be used on the lip instead of doing the radical neck dissection. I do believe, however, in the cancer of the lip that it will do just as well as the old local operation of dissecting out the growth from the lip without getting the neck glands—and moreover it will do it with nothing like the accompanying deformity and parrot mouth which we occasionally see. Again in the lip I believe if I had a cancer I would have the radium used for the local growth and then the radical operation on the neck a few weeks later after all local growth was cleaned up. I say I believe I would do this. I know that this is the ideal line of treatment—but I also realize that after radium has removed the local growth as cleanly as it will and does remove it, that it would require a great deal of persuasion to make me have an extensive Crile dissection with no palpable glands present.

Of course the most theatrical apparent effects of radium are seen in the superficial epitheliomata of the face. Here if used early the cancer is cleaned up with practically no scar at all. I feel almost like a patent drug advertiser when I see these cases and tell the patient what to expect. Of course the lesion goes through its irritation after the application of radium, and at times the reaction is quite severe. One man I remember told Dr. Weaver who is associated with me in our radium work—that he “Thought that he had ruined his wife” and then her face healed as clean as a baby’s skin.

It is manifestly impossible in fifteen minutes to go into all types of cancer and all manner of treatment. Each case is of course

a separate study unto itself, and hard and fast rules must not be laid down. Personally I have been most interested in the cancers of the uterus. Here I have seen within the past ten months the most remarkable—yes the most impossible things which I have seen since I started practicing medicine. I am no longer a very young man and supposed that I had passed the age of over enthusiasm. Yet in the treatment of cancer of the cervix I am constantly having to hold myself in check, when I am asked what results I expect to obtain. Doing general surgery and gynaecology here in Macon and being on the gynecological service at the Macon Hospital up to the time I entered the army, I was seeing more and more cases of cancer of the uterus. Of course I have some cases upon whom I have operated and who have passed the five years without recurrence. I heard from one in Houston County today whom I had lost track of and whom I thought was dead, and was very gratified to hear that she was still well. But if we men who have been doing these operations for the years gone by are honest with ourselves we have to confess that for every Mrs. D. and Mrs. S. in Houston County who are well, we have a Mrs. A., Mrs. B., Mrs. C. and many more in other counties who are long since dead. Moreover many and many a woman in the past has been examined in my office as there has been in yours and a diagnosis of inoperable cancer of the cervix made. These poor women are passed on back to their family physicians with directions to give them enough morphine to keep them comfortable until they die. Until that happy day of death comes they pass through months of torment—wishing that they would and could die. Their rooms are a stench and an abomination. They bleed and the discharge becomes more and more offensive. The local vaginal lesion sloughs into the bladder or rectum and finally they and their families all hail death as a merciful release.

Now what is the fate of these poor, unfortunates with radium. Let me take a bad case as an example. Mrs. C. had been in the hands of several physicians before she was referred to me for radium treatment. All of them knew that she had cancer of



the cervix and two of them had attempted to control her bleeding with cauteries, one by a small electric and the other by a Percy. When I first examined her she was bleeding constantly and her entire vault was a rotten, oozing nleer. After one treatment with radium her bleeding stopped and she has not bled a drop in the past eight months. Now she is not going to get well. I know that she has involvement in her broad ligaments and probably by this time other parts of her body are involved. But her life has been made infinitely more bearable and it has been done without any pain or without any operative risk. Another case is S. W. an old colored woman referred by Dr. Scott from Devereaux. When first examined her vault was filled by a large cauliflower extending down almost to her urinary meatus. She was bleeding constantly and had a violent cystitis with incontinence. Her bleeding also stopped after one treatment, and now after having had 5000 M. G. Hrs. she is an entirely different woman. Her vault at last examination was absolutely smooth—she had control of her urine and had gained twenty pounds in weight. She had resumed marital relations with her husband and has had absolutely no bleeding after first treatment. She thinks that she is entirely well and will not believe anything else.

I could multiply these cases of the inoperable ones again, but these facts have become known now all over the world and are no longer subject to argument or dispute. It is now I think accepted the world over that **RADIUM IS THE UNQUESTIONED METHOD OF TREATMENT IN THE INOPERABLE CASES OF CANCER OF THE UTERUS.**

The next question is—"What is the best method of treatment in the borderline cases?" I think that here also radium is the treatment holding forth the most hope—although of course each case must be judged on its own merits.

The last question is "What is the best method of treatment in early cancer of the cervix?" Several months ago I went to New York to talk to some of the men there who were using radium. I saw Janeway at the General Memorial. As is generally known

Janeway has become converted to use of radium alone in all cases of cancer of the cervix. His line of reasoning is good and clear. With the Wertheim you have a primary mortality of over 25% in the hands of the best operators in the United States with ultimate cure of only 27% in the selected cases by such men as Cullen and Kelly. Of the 75% not killed by the operation you have many postoperative sequelae such as vesic-vaginal and rectal fistulae. (In parenthesis I know he is right—I have seen them all).

With Radium you have no primary mortality. Your cases are immediately relieved from all their symptoms and Janeway claims "That unless the disease has already gone out into the parametrium you have a permanent cure." Again "If it has already gone out into the parametrium as shown by microscopic examination of a removed uterus by Wertheim operation—then we always get recurrence with death." In other words Janeway claims that where there is any possibility of the operation curing—that Radium will do the same thing with absolutely no operative mortality—no long stay in hospital and with no danger of post operative sequelae.

After seeing Janeway and his work I spent some time with Levin who is the other New York man with large quantities of radium on his hands and I observed a large number of cases. He believes that the ideal treatment of early cancer and of some of the border line cases is to give them full doses of radium first. This stops all discharge. The ulcerated surfaces heal rapidly and the cancer cells if not dead are certainly hibernating. Then do a simple hysterectomy with very little primary mortality. He claims that this way there is no danger of transplanting your cancer cells and he believes that it is the ideal treatment.

Personally I think that he is right—but can not prove it as yet. Recently I had an early case who promised to carry out this treatment—but now after the radium she says that she is well and will not consent to anything being done. The next one I get I will make give me a bond of some kind.

I made the statement here at the 6th District meeting several months ago that I firm-

ly believed that the radical operation for cancer of the uterus within a few years will be as extinct as the Dodo bird. The more cases I see treated by radium the more convinced I become that my prophecy is not false.

### **\*EARLY DIAGNOSIS A MEANS OF REDUCING THE DEATH RATE FROM CANCER.**

**J. L. Campbell, M.D., F. A. C. S.,**

Prof. Clinical Surgery, Medical Department, Emory University, Surgeon to Grady and Wesley Memorial Hospitals.

It was my purpose when I sent in the title of this paper to review briefly the frequency with which the various organs are attacked by cancer, and to outline some of the more important early symptoms; but after reflection, I determined to confine my remarks to the mammary gland.

Statistical knowledge of the frequency and time of life at which an organ is attacked by any given malady is of great importance in making an early and complete diagnosis.

The frequency with which the breast is attacked by cancer varies greatly in different countries. For instance, in England and Wales the annual death rate per 100,000 from 1906 to 1910, was 17.9, in the United States it was 13.3, in Italy 5.8 per cent, while on Japan it was only 1.8 (1).

In 1913, the number of deaths from cancer reported to the State Institute for the Study of Malignant Diseases in New York, outside of Greater New York, was 2,641. Of this number 1,733, or 65.5 per cent, were women; 314 or 18.1 per cent of these died with cancer of the breast. (2.)

In the U. S. Registration area for 1914, 5,423 deaths from mammary cancer were reported among a total of 54,420 deaths from cancer of all the organs. (3.)

The age at which cancer of the breast occurs is fairly constant—malignant tumors of the breast, according to Bloodgood, are so infrequent before the age of 25 that it is hardly worth considering. He found only one positive case in a series of 885. (4.) Statis-

tics gathered from many sources place the average age at 48 years. (5.)

We cannot, at present, assign any definite cause for the more frequent occurrence of cancer of the breast in England and the United States, than in Japan, unless we accept the theory advanced by William J. Mayo. "It seems," says he, "to be a well established fact that in the countries in which the breasts are allowed to remain exposed to the air without covering, cancer of the breast is extremely rare, and the incidence is in direct ratio to the amount of covering of the breast and the pressure exerted on it." (6.) It is certainly a well proven fact that cancer never develops without previous irritation. The idea that heredity plays any important part in the cause of cancer has been abandoned. Insurance companies no longer consider it. Hoffman states that in a series of 908 cases at the State Institute for the Study of Malignant Diseases in New York, a family history of cancer was present in only 12.5 per cent—a history of mastitis and abscess was found in a still smaller number. Trauma is likewise an uncertain factor in carcinoma, but more frequently precedes sarcoma. Lactation also seems to have no influence.

It must be remembered that an epithelial growth does not become malignant until the basement membrane is broken, and the cells begin to invade the connective tissue. There is no capsule to a carcinoma, the cells are from the first in direct contact with the lymph spaces and capillaries. This constitutes the chief pathological feature of malignancy. Bearing this in mind, **great care should be exercised in manipulating a tumor at the time of examination.** I have seen marked infiltration of near by nodes follow only gentle manipulation. Experimental evidence is abundant to substantiate this statement. For instance, experiments on mice in numerous laboratories have shown that in groups of mice inoculated with the same variety of cancer—cancer in which the cells are of equal size—gentle manipulation will be followed by metastasis into the lungs within a few days, while the lungs of the mice where there was no such manipulation, remain free. If it were not for the lymphatics, cancer would lose 80 per cent of its seriousness.

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

Many patients consult us for small lumps in the breast and when told that they are dangerous and should be removed, almost invariably reply, "It has never caused me any pain or inconvenience, why remove it?" It is hard to realize that the most dangerous diseases are almost always painless and this is especially true of cancer. It is very rare to have a patient complain of pain in the early stage. This fact is very unfortunate—people cannot realize that there is danger without pain.

Another deceptive symptom, or lack of symptom, is, an early cancer of the breast does not cause loss of weight, strength or flesh. The patient feels well, eats well and may gain flesh. (7.) The condition is non-inflammatory and purely local—no constitutional symptoms are manifest until metastasis occurs.

When a sure diagnosis can be made from the clinical picture and classical symptoms, it is too late to expect a cure. John B. Murphy says, "The time at which the operation is performed and not its extent, is the means of curing a cancer of the breast." (8.) Rodman once said, "If we are going to operate only on cancers of the breast which can be diagnosed clinically, then we will never get any better results than we got fifteen or twenty years ago. It is by making the diagnosis early and applying the treatment early that better results are obtained." (9.)

Every tumor or lump in the breast of a woman over 35 years of age should be considered malignant until proven otherwise, for at least 80 per cent will become malignant if allowed to remain. Now the question arises how can we prove that a tumor is benign or malignant? We do not want to sacrifice a breast for an early benign tumor, yet we do not want to take chances. There is no hard and fast rule to guide us. I believe that it is the safest plan to advise the removal of every lump in the breast of a patient over 30 years of age. If the lump is small, a local anaesthetic is all that is required. If, however, it has existed as long as four to six months, and has not given pain at the menstrual period, a general anaesthetic is advisable so that immediate removal of the breast can be made if the frozen section is suspicious.

I have selected a group of cases, not with any view of demonstrating the frequency or relation of malignant to benign tumors, but to show the importance of removing breast tumors during the early or pre-cancerous stage. I have selected fifteen benign and thirteen malignant tumor cases. Of the former all are now well and strong; while, so far as I know, only five of the latter are living—one has a recurrence and is being treated with x-ray; one, a very old woman, only left the hospital a few weeks ago; three who have passed the five-year period are well; while I have not heard from a sixth in some months.

The patients having the benign tumors, included two men and may be classified as follows:

- (a) Adeno-fibroma, 6—5 women, 1 man.
- (b) Chronic mastites, 3—2 women, 1 man.
- (c) Cystic adenoma, 2.
- (d) Intra-cystic adenoma, 1.
- (e) Intracanalicular fibroma, 1.
- (f) Massive cystic adeno-fibroma, 1.
- (g) Adenoma, 1.

In two of the women, the tumors had been present between four and five years. In the others only a few weeks to a month or two. In all the principal symptom was the lump; in a few pain was noticed during the menstrual period. In both the intra cystic adenoma and the intracanalicular fibroma there had been a blood stained discharge from the nipple before the enlargement was noticed.

In two the lumps were small and superficial, and were easily removed without disturbing the gland tissue to any extent. In one the lump was situated just over the outer border of the pectoralis major muscle in a detached lobule of mammary gland tissue. (I have had two cases in which tumors in this location were found to be adeno carcinoma—neither involved the axillary lymphatics, but one recurred in the scar, was treated by a quack and later died with cerebral metastasis.)

The massive cystic adeno-fibroma case, a negro woman about 35 years of age, had noticed a lump in her breast about 18 months before coming to the clinic. It had grown rapidly for the last few months and had reached the size of an adult head. It was covered with bleeding ulcers. A clinical



diagnosis of sarcoma was made, and a grave prognosis given. She was emaciated and very weak from loss of blood—there was no glandular involvement. A rapid simple excision was made with no attempt to close the skin except by a purse string suture. She began to improve at once and had gained several pounds before going home. The diagnosis of massive cystic adeno-fibroma was made by Dr. Funke.

In the others, including the two men, the growths were either diffused or involved so much of the gland tissue that it was not considered safe to leave the breast. I have depended either on frozen section or the macroscopic appearance of the incised tumor to decide the extent of my operation. If there was any doubt in my mind, and in the majority of cases there was, I removed the breast, pectoral fascia and central group of axillary lymph nodes. In no case has any patient suffered any inconvenience from the operation. They remain in the hospital from four or five days to a week, and begin to use the arm almost at once. In only one case, the intra-cystic adenoma, did the patient have any pain in the arm worth noticing.

I have been able to keep up with the majority of these cases and all have remained well. This is the class of cases in which a large number of the tumors would eventually have become malignant, but which if operated on early, and the growth thoroughly removed, 100 per cent remain well.

In 13, as already noted, the tumors were malignant. I have divided these into two classes. First those in which a diagnosis can easily be made and second those in which the tumor is found to be malignant only by the most careful examination. In the former there were ten cases and in the latter three.

In eight of the ten cases, the diagnosis was easy, as the clinical picture was complete. Extensive Halsted operations were performed as early as possible after the patients were first seen.

One of these cases illustrates the danger of massaging a lump. The patient had suffered from rheumatism for three years, and for the last few months had been given massage daily by a practical nurse, who had tried to

"scatter the lump in the breast." As soon as practical after being consulted, I did a very complete Halsted, then sent her to Kelley & Burnham for post-operative radium treatment. They assured us that there was no danger of a recurrence, but in less than four months there were nodules in the lower flap, then in the whole chest wall and liver. She died in a few weeks.

Of the remaining cases, four are known to be dead—one is now being treated with x-ray for a recurrence in the chest wall; one has been lost sight of but had no indication of a recurrence when last heard of, two years after the operation; and one only left the hospital a few weeks ago.

In the second class, I selected three cases who have now passed the five-year period without a recurrence. In these the diagnosis was confirmed by a competent pathologist but the cases were very early and the operation was complete. In one the arm has given some trouble due to a lymph stasis, but otherwise none of them have been inconvenienced.

If carefully done, a breast amputation is not dangerous. I have never had an operative mortality. I allow them to be propped up as soon as the effect of the ether has passed off, and in several instances I have allowed them to leave the hospital at the end of a week.

Lately I have made the incision recommended by Jabez Jackson, and have had little trouble in getting a complete closure without having to skin graft. I am also recommending the use of x-ray following the operation, especially if the disease had existed for any length of time. If all painless lumps, that do not disappear in a few weeks, were promptly removed, the mortality in the United States from breast cancer would be 1,000 instead of 10,000 annually, as at present.

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## DISCUSSION ON THE PAPERS OF

DRS. J. L. CAMPBELL AND C. C. HARROLD.

*Dr. Harry C. Schmeisser, Atlanta.*—I did not expect to be called upon to discuss these papers. Being a pathologic anatomist and bacteriologist, it behooves me to stick to my field, so I shall not venture to discuss these papers from any other aspect than that of a pathologic anatomist.

In Dr. Campbell's paper there were several points which may be particularly emphasized from a pathologic-anatomical point of view, and which are leading and fundamental. First, what constitutes malignancy in a tumor? Malignancy in a tumor may be considered in two locations. First, within the tumor itself; second, general malignancy.

What constitutes malignancy in a tumor itself? It is constituted by the lawless overgrowth of the particular cell which is forming the tumor. Being cancer, it is the epithelial cell; being sarcoma, it is then an embryonic connective tissue cell. It consists in a lawless overgrowth which serves no useful function and obeys no regular laws; therefore, we will find microscopically in such a tumor a cell which will vary in size and shape, and whose nucleus will vary in size, shape and staining. There will be mitotic figures giving evidence of rapid proliferation. There will be degeneration of the nucleus and cytoplasm of the cell. More than that, there will be invasion, as Dr. Campbell brought out. The basement membrane, on which the cells are mounted in the case of adeno-carcinoma, will be invaded. The cell grows through the basement membrane into the surrounding tissue. During this invasion it is obvious it will reach the blood capillaries, thus producing metastases.

In the case of carcinoma, it will be a general carcinomatosis. In the case of sarcoma, it will be a general sarcomatosis.

The malignant epithelial tumor, which we speak of as carcinoma, we know to be very rich in lymphatics, and that the invasion is into the lymphatic channels and distribution is frequently to the neighboring lymph glands which are the filters. On the other hand, sarcoma is rich in blood capillaries, and invasion is into the blood capillaries, and here the distribution is essentially through the blood channels. It is obvious, therefore, that the second point brought out so admirably by Dr. Campbell, namely, that the tumor must not be manipulated any more than absolutely necessary, is very important. It is quite obvious that if you manipulate a tumor you will displace the cells into the circulation and then they will be distributed.

I have heard eminent surgeons emphasize strongly that under no condition should you cut into a tumor if you can prevent it; that you should make a diagnosis of malignancy without incision. Good surgeons train themselves to do this. If you open the lymph and blood channels and cause a dissemination of the tumor cells, you do a great deal of harm.

A third point Dr. Campbell brought out, and one I wish to emphasize is early diagnosis to reduce the incidence of fatal cancer. This is, of course, well known. The earlier the diagnosis is made, the greater the chance of cure. I should like to go one step further. Let us get the precancerous lesion; let us get the lesions which are not yet cancerous. That is the point, and we know some of them definitely. For instance, let us remove the cause, or let us remove the field which we think is precancerous. Take a tooth rubbing upon a mucous surface. We know from statistics, and Bloodgood has studied these cases very carefully, that in many cases

cancer arises where a tooth constantly rubs. Let us have that tooth straightened. It is a very easy procedure considering the high quality of American dentistry. Where a pipe is constantly carried we find a high percentage of cancer just at the muco-cutaneous border of the lip. Dr. Harrold will bear me out that this is a common location for early cancer in the male.

Furthermore, we pass down the body, and we have warts that are perfectly benign; we have pigmented moles that are perfectly benign. Let me emphasize that Bloodgood has told me personally that in no case that he has had under observation in which a pigmented mole proved to be malignant was the patient saved. In other words, when a pigmented mole is diagnosed as malignant, metastases have already occurred. I

think he holds to that statement to this day, although I have not spoken to him since just before the war. Let us remove these warts, these pigmented moles. It is a simple operation, and you will relieve the patient invariably of a precancerous lesion and save him, frequently, from malignancy.

Let us go further. Let us take phimosis, inability to retract the foreskin of the penis. We get there a balanitis, or frequently there form calculi. These calculi form at areas of irritation, and you would be surprised to know how many cases there are in the rural districts where the foreskin has not been retracted in years. I know this as a pathologic anatomist. You will find concretions, true calculi underneath the foreskin the result of local irritation which may lead to precancerous lesions. We need to remove all of these and prevent cancer. Those are the points I wish to bring out.

I should like to mention a point or two in connection with the paper of Dr. Harrold. I have had no personal experience with the use of radium. I am not really competent to discuss his paper, from my own experience, but from speaking with other individuals who have used radium, such as Kelly, Burnam and other men, and being personally familiar with their contributions on the subject, I cannot help but agree with those who believe that the knife is to be used whenever possible, and then followed by radium. In those cases in which cancer is inoperable, do not give up hope because radium will help a great deal. Radium can be used in those cases where the knife will not reach, and that is the important thing. Inoperable cases can be made operable by the use of radium.

*Dr. W. H. Lewis, Rome.*—Radium has been in use long enough now for us to have established a reasonable working basis. Ten years ago the results were looked upon with skepticism; later they were regarded with cautious observation, and now radium has been accepted as a definite therapeutic agency.

Dr. Harrold has presented a very accurate summary of what we may expect. It is the general practitioner who sees the early radium cases, who sees the precancerous condition and malignant conditions, and he may think these cases are too far gone for anything, and he says, "We have given it up in the past; we can do nothing with it today." Experience has shown there is no direct relationship between the appearance of the growth and what radium will do for it. Some extreme conditions may respond surprisingly, other growths, which do not look as hopeless, may go down to early dissolution. The proof of the pudding is in the eating. There is no way of telling what radium will do until it is applied, and there is no agent that has been used in the past, outside of extensive surgery, which has given us cause for relief until ra-



dium has been used. It is the duty of every physician who sees a malignant cases, before the individual's chance is reduced to zero, to give him an opportunity to see what radium will do. A very large percentage of them will come back with results which are nothing short of miraculous. Radium will do one thing—it will cure entirely incipient malignancies. It will render surgical malignancies, which would have been previously non-surgical, utterly beyond the reach of surgeons. It will give a patient, who has a miserable malignant condition, an opportunity for a decent exit from the world. It will relieve suffering. It will limit tumor growth and make the patient grateful that he has had relief from radium. Radium has been used for a long time in thousands of cases so that now we have established facts. They are not theories, but they are the demonstrated data of clinicians and those who have been using radium and have been watching it for a long time. While Dr. Harrold and I are inclined to be enthusiastic, still we feel that there is such an essence of truth in our enthusiasm that it is fully worth while giving every individual patient an opportunity, and the only way that opportunity can be presented to them is by the man who sees them first, the man who is out in the field. If he overlooks the opportunity, the responsibility is his, or he sends the patient to the man who is using radium too late.

*Dr. L. C. Allen.*—I feel that the association would be glad to hear from the chair on this subject.

*Dr. E. G. Jones, Atlanta.*—I merely wish to comment on the treatment by radium. Dr. Harrold intimates very properly I think that radium should be used with perhaps a little more caution about the lip than any other part of the body, the particular reason being that metastasis from the lip and tongue is extremely easy. There are said to be 700 lymphatic glands in the body and 300 of these are in the neck.

In a diagnosis of cancer of the lip the lesion may involve the superior maxillary gland, the salivary glands on both sides of the neck, and by reason of that fact there is an easy lymphatic communication from one superior maxillary triangle to the other; also, these lymphatics, these radicles which drain in the center of the lip anastomose one with the other so that the lesion may invade both sides.

A case of diagnosis of cancer of the tongue condemns not only the superior maxillary lymphatic glands, the superior maxillary salivary glands on both sides of the neck, but it condemns also the deep lymphatic glands as far as the point where the omo-hyoid crosses the internal jugular vein. Again, cancer of the tongue drains directly into the deep lymphatic glands in the region of the internal and jugular veins, so that no one is safe with cancer of the tongue without having the superficial and deep glands of the neck dissected out as far as the omo-hyoid crosses over the internal jugular vein.

This is a matter of superlative interest to the association, and I take this occasion to say that I want to commend to my successor, whoever he may be, and to the Council that this association keep constantly before the public the cancer question. I am not speaking of the profession now, because you and I know what a lump in the breast usually means. The public believes that it is not dangerous because it is not felt, and if we do not get the patient within the purview of a doctor before such time as anybody can make a diagnosis, by that time the situation is serious.

I take this occasion also to say that a number of councilors have taken upon themselves the responsibility of holding public sessions at their district meetings, where they have invited women's clubs to co-operate with them in getting together what has been said, and it is unnecessary to go out of a single congressional district in the State of Georgia to find men who can present in a lucid way the simple facts relating to cancer which the public ought to know.

This is an educational opportunity which we ought to carry to the public.

*Dr. J. L. Campbell, Atlanta (closing the discussion).*—First, there are one or two points I want to bring out in discussing Dr. Harrold's paper, which, owing to the time limit, I feel sure he was unable to do. Personally I have had no experience with radium, but I have noticed that recurrent nodules are being reduced very rapidly by the introduction of needles containing radium directly into the growth and also that inoperable conditions are being rendered operable by this method combined with the external application of larger amounts of radium.

At the public meeting held in Atlanta last night Dr. Gaylord discusses at great length the use of radium. He was very enthusiastic in recommending it in the treatment of carcinoma of the cervix. He pointed out that, although the treatment was not always successful, there were not so many distressing after effects; for instance recto- and vesico-vaginal fistula very seldom occur after the use of radium while they are common after surgical procedures.

In cancer of the breast I agree with Dr. Harrold that radium is of little or no value except perhaps the needles in reducing small recurrent nodules.

Dr. Gaylord will bring out many of these points tomorrow night and elucidate the subject far better than any of our local men. Dr. Gaylord feels that radium should be owned by the State or by some endowed institution as is the case at the General Memorial Hospital, New York City, where they have four grams and can use it without cost to the patient. In this way it is placed beyond the reach of commercialism.

I have very little to say in closing the discussion on my paper except to express my thanks for the liberal discussions and to emphasize the fact that any lump in a woman's breast is a serious matter, especially if she has passed the age of thirty-five. I feel that all lumps at that age and over should be removed. I hope, in the future, you gentlemen will bear in mind the necessity of the early removal of all lumps and also the infrequency of pain in the early stages of cancer.

Recently I removed a lump no larger than a pea from a woman's breast and when it was examined by Dr. Bunce it was found to be a border line tumor if not already malignant.

Biopsy is in my opinion a dangerous procedure. It is strongly condemned by Ochsner, Deaver and many prominent surgeons, while many laboratory men, among them Dr. Francis C. Wood, of New York, see no harm in the procedure.

*Dr. C. C. Harrold, Macon (closing the discussion).*—The one thing that holds out more hope now is a statement from Dr. Will Mayo to the effect that breasts that are not covered are not going to develop cancer. If women would wear evening clothes in the daytime cancer of the breast would not be as frequent as it is in America.

One thing that has not been mentioned is leukoplakia, which is a thickened tongue in old syphil-



ities. These cases respond wonderfully well to radium, and it is about the only thing they do respond to. These cases occur late after the syphilis has apparently healed and the Wassermann reactions are negative. They get a thick, cracked, tongue, with white stain, and they respond very well to radium.

*Dr. Campbell.*—Don't you think it would be a good idea to block the lymphatics before you use radium?

*Dr. Harrold.*—I did not think it wise to go into that phase of the subject as it would take too much time. I realize that radium has its limitations. Dr. Jones spoke of the neck. Crile brought out the point in 1905 that with block dissection he could remove cancer of the lip in about 80 per cent. of the cases without going after the glands.

I have only had two or three cases of cancer of the tongue and the results from the use of radium were not good. They were selected cases, inoperable to start with, and in old people. I do not believe radium should be used in cancer of the tongue if you can do operative work, although there are men in Chicago using radium in these cases and are getting good results. One of the first cases of cancer we got was one in which the disease involved the neck low down to the omohyoid.

I have had cases of epitheliomata of the tonsils, and in these have used both surgery and radium, but the results have been poor.

I have had four cases of cancer of the penis, in only one of which did I advise the use of radium. The three others were operated on. In one a radical operation was done, in the other two amputation was performed. One of my patients on which I am using radium weighs 300 pounds. I did not believe he could stand a radical operation, so I have not advised it.

### A CASE OF TETANUS, WITH RECOVERY.

Richard Binion, M.D., Milledgeville, Ga.

G. B., a white youth 14 years of age fell from a bicycle on June the ninth. He was carrying a bottle in his hand and in falling the bottle crushed, causing a cut in the fleshy portion of the palmar surface of the hand. This cut was about five centimeters in length and just through the superficial fascia. The wound received the usual antiseptic attention, with the use of two catgut sutures to approximate the edges. No anti-tetanic serum was given. At the end of the sixth day the union seemed perfect and the sutures were removed.

On the evening of June the seventeenth the youth complained of stiffness in his neck, but this was thought to be due to a "head cold" which he had contracted. He spent a comfortable night and in the morning dressed himself as usual.

On the morning of June the eighteenth he remarked that his neck was stiff and that he could not masticate his food. I saw the

lad at 11:15, examination revealing rigidity of the muscles of the neck, partial trismus, dilatation of the right pupil, partial ptosis of both lids, and a spastic contraction of left hand. Realizing that I was dealing with a case of Tetanus, I immediately gave 4,000 units of anti-tetanic serum intravenously. Free incisions were made through the scar tissue into the original wound and no evidence of supuration was seen. Four injections of anti-tetanic serum were made into the area of the wound, about 1,000 units being used. The wound was then swabbed out with pure Phenol.

At one P. M. trismus was more marked, as was the rigidity of the neck muscles. There was a board like rigidity of the abdominal muscles and Kernig's sign was positive. The youth seemed perfectly conscious and he was beginning to suffer a great deal. Additional anti-tetanic serum had been secured and at 1:30 P. M. 30,000 units were given intravenously. At 3 P. M. trismus was complete, ptosis of both lids, and the lips were puckered, presenting the picture, "risus sardonicus." Between 3 P. M. and 6 P. M., at irregular intervals, the youth had six or eight convulsive like paroxysms, varying in duration from 5 to 30 minutes. One paroxysm was of 30 minutes duration, during which time he was on his head and heels. After relaxation from the paroxysm there was marked prostration with very free perspiration. At 7 P. M. 30,000 units of anti-tetanic serum were given intravenously. There was no apparent change in the youth's condition during the next 10 hours, other than an increase in his restlessness and suffering.

At 6 A. M. on June the nineteenth, trismus was less marked, as was the opisthotonos. At this time on account of the lad's discomfort, I gave him subcutaneously, morphin Gr. 1/8 and Scopolamine Gr. 1/200. The effect was so good that the use of this combination was continued P. R. N. At 10 A. M. 15,000 units of serum were given intravenously. Under the narcosis the youth spent a fairly comfortable day. At 7 P. M. the condition changed, trismus again becoming complete and opisthotonos marked. At 9 P. M. 30 cc. of spinal fluid were withdrawn, 15 cc. of which was mixed with 15 cc. of anti-tetanic

serum (15,000 units). This was then given intrathecally. Except for restlessness the night was uneventful. On June the twentieth, at 7 A. M., the picture was different. Trismus and opisthotonos were less marked, but the body retained its rigidity. Previously the lad had been unable to swallow, but during the morning he was able to take several table-spoons full of milk. He spent a fair day and at 6 P. M. 20,000 units of serum were given intravenously.

From June the twenty-first the symptoms gradually cleared up. On June the twenty-ninth the opisthotonos had entirely cleared up and on July the first there was no Kernig's. On July the third the board like hardness had entirely left the abdomen and the rigidity had almost left the neck muscles. On July the fifth, the lad could open the eye lids at will and could control the facial muscles to the extent of smiling. From July the fifth the recovery has been uneventful, and at this time the lad appears perfectly normal.

This case is reported principally to remind you that Tetanus still exists. I trust that it will also remind you that a prophylactic dose of anti-tetanic serum given at the time of injury is a fairly sure preventative against this deadly malady.

### THE DUODENAL TUBE.

**The Duodenal Tube and Its Possibilities,** by Max Einhorn, M. D., Professor of Medicine at the New York Post Graduate Medical School; Visiting Physician to the Lenox Hill Hospital, New York City. Octavo of 122 pages with 51 illustrations. Cloth, \$2.50 net. W. B. Saunders Company, Philadelphia and London.

This interesting little manual bears the hall-mark of authority, for, if any single individual is capable of elucidating the duodenal tube and the duodenum itself, it is Dr. Einhorn. By his labors he has cleared up a number of vexed problems concerning the duodenal juices, and here he enters more deeply into the subject than heretofore.

Beginning with a brief history of the duodenal tube and its congeners, he then discusses the duodenal contents and methods of their analysis. His chapter on the Diagnostic Import of the Duodenal Tube, while

containing some points somewhat controversial in their character, is fairly convincing. The chapter on the Duodenal Tube as a Therapeutic Means, contains much worth-while information, though some of his assertions and conclusions may not be accepted in their entirety by gastroenterologists.

The book, as a whole, however, is instructive and therapeutically constructive, furnishing food for both thought and effort. It is a distinct contribution to this not-too-well-understood subject. —Niles.

**The Treatment of Eclampsia by Transfusion of Blood.**—In the British Medical Journal, May 8, 1920, Blair Bell calls attention to the results of other investigators in demonstrating apparently that there is a substance in normal blood, in both males and females, which neutralizes the toxin of the placenta. These results caused Bell to try transfusion in a very serious case of eclampsia. In this case, he transfused approximately 500 cc. of blood from the husband to the patient, using the sodium citrate method, with exceedingly good results. Bell hopes that others will try this method of treatment and report the results. —Morris.

**Gastric Syphilis, With the Report of a Case**—McGaughey and Tyree (Journal of the Missouri State Medical Association, 1920, vol. xvii., p. 21) made a diagnosis of the case reported, upon the basis of the following findings: (1) the patient presented symptoms of malignancy but was under the cancer age; (2) the cachexia was not in proportion to the reduction in the red cell count; (3) the symptoms were not painful enough for ordinary peptic ulcer; (4) one of the patient's children had congenital syphilis, and the patient had had five miscarriages; (5) positive Wassermann; (6) the presence of blood cells and mucus in the feces; (7) on examination with the x-ray, a filling defect was found, with an absence of adhesions indicative of an organic lesion; and (8) the result of the therapeutic test—a diminution of the bowel movements to two daily, after six weeks' anti-syphilitic treatment.

—Morris.



# THE JOURNAL

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## KEEPING THE RECORD STRAIGHT.

Let every citizen in Georgia who stands for the protection of the health of the people remember the following passages from the recent Chiropractic bill which was defeated in the Senate. Also let them remember how their senators voted on this bill and ask the question, Why?

Sec. 6 (a). Chiropractors who have complied with the provisions of this act shall have the right to adjust patients in Georgia, according to

specific Chiropractic methods and shall observe state, municipal and public health regulations, sign death and health certificates, reporting to the proper health officers the same as other practitioners.

What does a man or a woman know about signing death and health certificates who denies the existence of infectious and contagious diseases? How about such a person giving a health certificate to a patient whom he has treated for gonorrhea, syphilis or tuberculosis by adjusting the spine? What is to become of the untold labor of physicians, public health officers, states and municipalities for the prevention and eradication of these diseases?

Sec. 7 Chiropractors practicing within this State prior to the passage of this Act who are graduates by attendance of chartered Chiropractic schools or colleges shall be granted a license as herein provided without examination, provided application be made within thirty days after taking effect of this Act accompanied by the required fee as herein provided.

We ask, Graduates of what kind of schools or colleges? Any kind of a school may become chartered. How much attendance One week? One month? Or how much? Remember that 90 per cent of the Chiropractors in Georgia today have less than an ordinary high school education. Remember, also, that 90 per cent of them have so called "Office Diplomas" issued by the Chartered schools.

Those members of the Senate who voted for the passage of this bill to license ignorant men and women to practice upon and prey upon the people of Georgia are as follows:

J. E. T. Bowden, B. B. Brooks, J. B. Bussey, Jas. B. Clements, James A. Dixon, J. T. Duncan, H. H. Elders, J. H. Ennis, J. J. Flynt, Ben J. Fowler, George G. Glenn, C. J. Harbin, J. H. Keene, J. K. Larkins, Oscar A. Nix, J. T. Olive, S. W. Ragsdale, W. K. Reece, J. S. Shingler and W. P. Wallace. —20.

Those who voted against the passage of this bill and therefore for the protection of the health of the people of the State were:

Clarence E. Adams, Ivan E. Allen, J. S. Ayers, Fermor Barrett, Walter L. Bell, J. C. Calhoun, Walter W. Cureton, H. M. Kaigler, Fred Kea, M. M. Kendall, Z. W. Kirkland, J. R. Lunsford, J. D. Maynard, Leonorian



Neidlinger, Claud C. Pittman, J. F. Pruett, Z. T. Rabun, W. H. Reynolds, W. D. Rice, J. Q. Smith, E. T. Steed, P. G. Veazey, Jesse W. Vickery, S. M. Watson, H. B. Wilkinson and A. J. Wood.—26.

Those not voting were: Josiah Blasingame, W. H. Dorris, J. P. Hogg and R. C. LeSeur.

Let every physician in Georgia keep this list for future reference.

### WHAT SHALL WE CALL THIS?

That we have some practices—we hope they are very limited—going on in our State compared with which “Fee-Splitting” pales into insignificance is shown by the following letter:

Dear Doctor:—

I read the article in the July Journal in reference to “fee-splitting” and am satisfied that the writer is exactly right. It is a shame to have these things to write about in our medical literature. I think the “fee-splitting” surgeons are few—I hope so at least. I have another matter in mind I would like to see you touch up a little in our next issue. It is this: Some doctors are making a charge of Ten Dollars for having a Wassermann made by the State Board of Health. This, it seems to me, looks a little worse, if possible, than the “fee-splitting.” I do not know what name to give this evil, but I guess you are equal to the emergency.

(Signed) \_\_\_\_\_, M. D.

We repeat, what shall we call this? Petty larceny, thievery, stealing, to take without right, to secure dishonestly, gratifying—are some of the terms which come to mind, but they all seem inadequate. The “fee-splitter” is a paragon of virtue compared to this creature.

What community, what state, what municipality allows the charging of any fee in its public and charitable institutions? Every citizen of the State is entitled to the services of the State Board of Health, the State Sanitarium at Milledgeville, the State Tuberculosis Sanatorium and other State institutions, but wherein does any one—be he physician or layman—get the right to “graft” on the public in order to secure these services for one of its citizens? All of our State institutions are having a heavy burden to carry with only a limited amount of funds. It is our duty as citizens and physicians to assist them in every manner possible. The man who solicits or

accepts a fee for work done by the State Board of Health is just as much entitled to it as he would be if he were to break into your house in the dead of night and steal the very clothes you wear. It is worse than highway robbery for in this instance the victim knows he is being robbed.

### PRACTICING MEDICINE IN GEORGIA.

#### SCENE I.

One of the flourishing towns in Georgia.

Time: The present. Midnight and raining.

Characters: Dr. A, one of the older, most beloved and honored men in the profession. Dr. X, a wide-awake, energetic and capable physician of the above town.

Although somewhat indisposed Dr. A has responded to the call of his professional brother, Dr. X, to assist him with a difficult case. After a railroad journey and a trip over the present almost impassable roads to administer to the patient the two physicians have arrived back in town.

Dr. X (slowing up his auto): This is our hotel.

Dr. A (weary almost to the point of exhaustion): Yes.

Dr. X: Your train leaves at 5 A. M. We appreciate your assistance in this case very much and will follow your suggestions. Good Night!

(Dr. A gets out of car and Dr. X drives away.

Dr. A enters the hotel and finally arouses the clerk.)

Dr. A: I'd like to secure a room for the night.

Clerk: Sorry, but all are taken.

Dr. A: Haven't you a cot or something that one may rest on?

Clerk (after consulting the proprietor): Sorry, but not a thing.

Dr. A: Is there a place anywhere in town where I may secure a bed for the night?

Clerk: Mrs. B, who lives two doors beyond the second corner to the right after you pass the school house, has rooms to let.

(Dr. A walks out in the mud and rain and darkness and finally locates the house referred to by the clerk. He raps furiously on the door.)

A Voice: What is it?

Dr. A: Would it be possible to secure a bed for the night?

Mrs. B: I'm very sorry, but we have absolutely no place at all for tonight.

(Dr. A, weary and wet, turns and walks through the dark and sleeping town to the depot where he finds a bench in the waiting room. After being seated a short time an auto comes up and the

lights shine through the door. Dr. A walks to the door.)

Autoist: Waiting for the train? It's not due until 5 A. M.

Dr. A: Merely seeking a shelter. I've been unable to find a bed in your town for the night.

Autoist: Have you tried "Pete's Place?"

Dr. A: No. Where is it?

Autoist: Upstairs over the store at the corner.

#### SCENE II.

9 A. M. next morning. Dr. A's home town where he has been administering to the sick for more than a quarter of a century.

Dr. A (to the nurse): Bring in the next case.

### MEETING OF SOUTHERN MEDICAL ASSOCIATION.

The fourteenth annual meeting of the Southern Medical Association will be held in Louisville, Ky., November 15-18. The meetings of this association are of particular interest to all physicians in this State since its membership is limited to the sixteen Southern states. It is the second largest medical organization in the United States and its meetings are always well worth attending. It does not conflict with the state or national organizations but its membership is limited to those physicians who are members in good standing of their respective state associations. The Journal of the Southern Medical Association is one of the best in the entire U. S. and it alone is well worth the membership dues of three dollars per year. However, its sessions are not confined entirely to its own membership, as there are always many visitors at its interesting meetings. So, let's all get together and see that Georgia is well represented—as she should be—at the Louisville meeting.

The following is a list of hotels with their rates as published in the August issue of the Southern Medical Journal:

SEELBACH HOTEL, Fourth and Walnut Sts. General hotel headquarters; hotel headquarters for Section on Medicine, Section on Pediatrics, Southern Gastro-Enterological Association, and Conference on Medical Education.

Single room, \$2.50-\$3.00.  
Double room, \$4.00-\$4.50.  
Single room with bath, \$3.00-\$4.50-\$5.00-\$6.00-\$7.00.

Double room with bath, \$5.00-\$6.50-\$7.00-\$8.00-\$9.00.

HOTEL HENRY WATTERSON, Walnut St., between Fourth and Fifth.

Hotel headquarters for Section on Eye, Ear, Nose and Throat, Section on Urology, Section on Orthopedic Surgery, and Section on Roentgenology.

Single room, \$1.75-\$2.50.

Double room, \$3.00-\$4.00.

Single room with bath, \$2.50-\$6.50.

Double room with bath, \$3.50-\$7.00.

TYLER HOTEL, Third and Jefferson Streets. Hotel headquarters for Section on Surgery and Southern States Association of Railway Surgeons.

Single room with bath, \$2.50 up.

Double room with bath, \$4.00-\$6.00.

LOUISVILLE-OLD INN HOTEL, Sixth and Main Sts. Hotel headquarters for Section on Public Health and National Malaria Committee (Conference on Malaria).

Single room, \$1.50-\$3.50.

Double room, \$2.50-\$4.50.

Single room with bath, \$2.00-\$6.00.

Double room with bath, \$3.50 up.

HOTEL KENTON, Walnut St., between Fourth and Fifth.

Single room, \$1.50 to \$4.00.

Double room, \$2.50-\$6.00.

Single room with bath, \$2.00-\$6.00.

Double room with bath, \$3.50 up.

HERMITAGE HOTEL, 543-545 South Fifth St.

Single room, \$1.50 up.

Double room, \$2.00 up.

Single room with bath, \$2.00 up.

Double room with bath, \$3.00 up.

WILLARD HOTEL, Center and Jefferson Sts.

Without bath, \$1.50.

With bath, \$2.00-\$2.50.

VICTORIA HOTEL, Tenth and Broadway.

Single room, \$1.50.

Double room, \$2.50-\$4.00.

Single room with bath, \$2.50.

Double room with bath, \$4.00.

### MIDSUMMER MEETING OF THE FIRST DISTRICT MEDICAL SOCIETY.

The midsummer meeting of the First District Medical Society was held in the hall of the Georgia Medical Society, Savannah, on July 15, 1920, being called to order by the President, Dr. E. E. Miller, of Claxton, Ga. The attendance this year was the largest in some years, every seat in the hall being occupied. The papers presented were unusually interesting and showed careful preparation.

#### Morning Session.

Invocation by the Rev. W. T. Dakin.

Address of Welcome on Behalf of the City—Mayor M. M. Stewart.

Address of Welcome on Behalf of the Georgia Medical Society—Dr. J. Lawton Hiers.

Response—Dr. A. J. Mooney, Statesboro, Ga.

Case Reports, by the Members of the Society.

Paper, "A Study of Heart Sounds, Murmurs, etc."—Dr. J. W. Daniel, Savannah.

Paper, "Digestive Disturbances in Pellagra with Report of Cases"—Dr. E. L. Bishop, Savannah.

Paper, "Report of Six Cases of Meningo-Encephalitis"—Dr. H. Rubin, Savannah.

Paper, "Diagnosis and Treatment of Hemorrhoids"—Dr. R. J. Holmes, Savannah.

Paper, "Discussion and Presentation of Interesting Pediatric Cases"—Dr. A. J. Waring, Savannah.

Paper, "Report and Demonstration of Abscess of the Upper Lobe of the Lung"—Dr. T. P. Waring, Savannah.

At this point it was moved and seconded that the Society go into the election of officers for the ensuing year, and then adjourn for luncheon. The following officers were elected:

Dr. Charles Usher, Savannah, President.

Dr. J. O. Strickland, Pembroke, Vice-President.

Dr. J. O. Baker, Savannah, Second Vice-President.

Dr. E. L. Bishop, Savannah, Secretary-Treasurer.

The Society then adjourned for luncheon at the Hotel Savannah.

#### Afternoon Session.

Paper, "X-Ray Examination vs. X-Ray Picture"—Dr. W. A. Cole, Savannah.

Paper, "Carrel-Dakin Treatment of Empyema"—Dr. C. Usher, Savannah.

Paper, "Fracture of the Ankle"—Dr. G. R. White, Savannah.

Paper, "Preparation and Use of Autogenous Vaccines"—Dr. Lee Howard, Savannah.

Paper, "Vertigo"—Dr. E. S. Osborne, Savannah.

This concluded the meeting and the members and guests took the train for Tybee, where all enjoyed the surf bathing, with a "shore dinner" afterward.

EVERETT L. BISHOP, M. D.,

Secretary.

#### MEETING OF THE SECOND DISTRICT MEDICAL SOCIETY.

The Second District Medical Society held

its midsummer session at Thomasville on Friday, August 13, 1920.

#### Morning Session.

The meeting was called to order by the President, Dr. W. L. Davis, of Albany. Dr. A. W. Wood, of Albany, the Secretary, recorded the proceedings.

The program as carried out follows:

Radium; Report of Cases—Dr. C. K. Wall, Thomasville.

Group Medicine—Dr. A. D. Little, Thomasville.

Some Problems Associated in Surgery of the Prostate—Dr. W. S. Goldsmith, Atlanta.

Submucous Resections—Dr. I. W. Irvin, Albany.

Illegal Practitioners in Georgia—Dr. Allen H. Bunce, Atlanta, Secretary of the State Association.

Following the talk of Dr. Bunce, the President appointed a committee to draw up resolutions in reference to the enforcement of the medical laws of Georgia. This committee subsequently reported the following resolution, which was unanimously adopted:

Whereas, the members of the Second District Medical Society are aware that there are a number of people practicing medicine in the State without proper license, and

Whereas, it is to the interest of the people of the State to be protected by its laws. At present, in this State, it is necessary for a person to attend college at least six years before being permitted to practice medicine and many take from one to two years additional in hospitals. Therefore, it is manifestly unfair to the public to permit some member of a cult or new thought school to advertise as diagnostician and healer of all human ills without having the proper qualifications. Therefore, be it

Resolved, that the Second District Medical Society in convention assembled inform their representatives as a body and individually of this situation and ask their support in maintaining the medical laws of the State of Georgia, and ask their support in defeating all attempts to legalize unqualified persons to practice in this State. This resolution is aimed at all persons illegally



practicing medicine in Georgia, at present the Chiropractors being the chief offenders.

Respectfully submitted,

C. K. SHARP, M. D.,

J. M. SPENCE, M. D.,

H. M. MOORE, M. D.,

Committee.

### Afternoon Session.

Tonsillectomy and Its Sequels—Dr. H. M. Moore, Thomasville.

By special request, Dr. A. D. Little read his paper on Group Medicine or a Community of Specialists vs. a Community of Doctors. This was very freely discussed.

The Second District Society endorsed the movement launched by Albany to secure for that city the Baptist hospital to be erected in Southern Georgia by the Baptists.

A resolution was passed thanking the physicians of Thomas County Medical Society, and Thomasville in particular, and their wives for the entertainment furnished the Society. The barbecue luncheon was the most sumptuous in the history of the organization.

Upon the invitation of Dr. J. M. Spence, of Camilla, Mitchell County, it was voted to hold the next meeting at that place. The next meeting will be held on the second Friday in February.

Upon motion, the Society adjourned.

A. W. WOOD, M. D.,

Secretary.

### MEETING OF THE EIGHTH DISTRICT MEDICAL SOCIETY.

The Eighth District Medical Society held its annual meeting at Watson Springs, Ga., August 11, 1920.

The meeting was called to order by the President, Dr. E. H. Kennimer, of Bishop, and the Secretary, Dr. D. M. Carter, of Madison, recorded the proceedings.

The following program was carried out:

#### Morning Session.

Invocation—Rev. L. M. Twiggs, Madison.

Address of Welcome—Hon. Robt. L. McWhorter, Athens.

Response to Address of Welcome—Dr. Dan H. DuPree, Athens.

Address—Dr. E. G. Jones, Atlanta.

What the Medical Association of Georgia is Striving to Accomplish—Dr. Allen H.

Bunce, Atlanta, Secretary of the State Association.

Radio-Therapy in the Treatment of Cancer—Dr. O. D. Hall, Atlanta.

Gun Shot Wounds of the Chest—Dr. T. C. Davison, Atlanta.

Barbecue Luncheon—a la—Drs. Maxey and Bryant.

### Afternoon Session.

Modern Diagnosis and Treatment of Syphilis—Dr. J. P. Bowdoin, U. S. Public Health Service.

Psychology in Medicine—Dr. J. R. Robins, Siloam.

Surgical Kidney, With Report of Cases—Dr. J. P. Proctor, Athens.

Headaches of Nasal Origin—Dr. G. D. Ayer, Atlanta.

Tinnitus Aurium—Dr. S. A. Clark, Eatonton.

My First Obstetrical Experience—Dr. O. L. Deadwyler, Carlton.

A vote of thanks was extended to Drs. Maxey and Bryant and also the management of Watson Springs for the wonderful barbecue which was tendered the association.

The next order of business was the election of officers for the ensuing year. The following were elected:

Dr. L. Bryant, Maxeys, President.

Dr. H. M. Fullilove, Athens, Vice-President.

Dr. D. M. Carter, Madison, Secretary-Treasurer.

An invitation was extended the society by the Eatonton and Putnam County Chamber of Commerce and by the Putnam County Medical Society for the next meeting of the society to be held in Eatonton. This invitation was accepted. The next annual meeting will be held there on the second Wednesday in August, 1921.

This was conceded by all to have been one of the most successful meetings of this society especially so when the rainy weather and bad condition of the roads were taken into consideration. It is expected that the next meeting will be the largest in the history of the society.

D. M. CARTER, M. D.,

Secretary.

### MIDSUMMER MEETING ELEVENTH DISTRICT MEDICAL SOCIETY.

The Eleventh District Society held its nineteenth semi-annual meeting at Adel, Ga., Tuesday, June 8th, 1920, with a record attendance of members and visitors. The meeting was presided over by Dr. R. C. Woodall, of Adel, the president.

Invocation by Rev. J. E. Hall.

Address of Welcome, by Prof. J. C. Thomas, Commissioner of Education, Cook County.

Response, by Dr. J. F. Mixson, Valdosta.

The following papers were read and discussed during the morning session:

"Foreign Bodies in the Eye, and Their Treatment," Dr. B. H. Minchew, Waycross.

"Burns," by Dr. H. C. Wheelchel, Douglas.

"The Early Treatment of Syphilis," Dr. W. C. Hafford, Waycross.

"Medical Inspection of School Children," Dr. R. W. Todd, Brunswick.

After a barbecue luncheon, served by the Chamber of Commerce of Cook county, assisted by a bevy of beautiful young ladies, Dr. W. A. Mulheria, Chairman of the State Association Committee on "Health and Public Instruction," delivered an interesting talk at the school auditorium to the Society and laity of the city, on "Babies and Children, and Their Summer Diarrhoeas."

Following this, two very interesting films from the State Board of Health and U. S. Public Health Service, showing Mosquito Eradication in Georgia, and the Diagnosis, Treatment and Control of Syphilis, respectively, were shown by Dr. M. F. Haygood, of Atlanta, and Dr. C. C. Applewhite, of the U. S. Public Health Service.

After the movies, a sumptuous banquet was served the visitors by the Berrien-Cook Medical Society at the hotel, during which quite a number of interesting talks, experiences and addresses were given.

A motion prevailed that a group photograph be made for the Society from pictures secured from all members who served in the late war, as a tribute to those physicians who responded to the call.

The City of Adel, the Chamber of Commerce of Cook County, the Berrien-Cook Medical Society, were all tendered a rising

vote of thanks for the excellent way in which the meeting was entertained.

The next session will convene at Waycross, Ga., on Tuesday, November 9th, 1920.

J. W. SIMMONS, M. D.,  
Secretary.

### BATTEY MEMORIAL COMMITTEE MEETS IN ROME.

On Saturday, August 21st, at 1 p. m., the Battey Memorial Committee, which was appointed by the Seventh District Medical Society at Dalton in July, met at the Harbin Hospital in Rome.

Dr. Howard E. Felton, of Cartersville, who worked side by side with Dr. Battey for several years, was elected permanent chairman of the committee.

Dr. J. W. Curry, a former resident of Rome, but now of Greenville, S. C., could not accept active membership on the committee on account of being unable to meet with it regularly. The committee selected Dr. M. M. McCord, of Rome, in the place of Dr. Curry. Dr. McCord was made secretary.

Drs. W. P. Harbin and R. P. Cox, of Rome, and Dr. Geo. R. West, of Chattanooga, were appointed a sub-committee to decide on the type of memorial and to form plans for launching the movement.

The committee will call upon the Medical Association of Georgia next May, when it meets in Rome, to join the Seventh District Medical Society in paying tribute to the memory of the great pioneer Georgia surgeon.

### AN OPEN LETTER FROM THE DIRECTOR OF THE BUREAU OF VITAL STATISTICS.

W. A. DAVIS, M. D.

The State Registrar wishes to thank the medical profession and each physician individually for the co-operation shown the State Bureau of Vital Statistics in its efforts to bring the statistics of Georgia up to the standard required by the Federal Census and as endorsed by the A. M. A. and A. P. H. A.

It does not look well for a copy of a death certificate to be taken into court with

a physician's name signed to the medical particulars when the cause of death is given as "eppelleptic," "threesh," "thrask," "collin in fantum," "creame poisoned kid-neys," "general delivery," "sipphillis," "superlative etitis media," "nurasmuth," or "silitis;" nor can an accurate classification of a death be made when the cause is given as "cancer," "heart dropsy," "kidney trouble," "jaundice," "stomach trouble," or "hives." Such terms as "accidental wounds," "gunshot," "fall," "found dead" and "poison" will never get Georgia into the registration area, for a death from external cause must show whether accidental, suicidal or homicidal and the method used. All these terms appeared on death certificates signed by physicians for deaths occurring in June of this year, but most of them have been corrected.

This Bureau in an effort to correct such errors sends out a correction letter to the physician, for the local registrar is not experienced in medical terms and the Bureau is dependent upon the physician for the correction of such. The number of replies received in this work is the strongest evidence that the physicians of Georgia demand that the statistics come up to the standard so that they will be of value not only to the public, but also to the profession, and this Bureau wishes to thank the physicians for their replies to such letters, for it, too, is desired that the state statistics be brought up to the standard.

#### NEWS ITEMS.

Dr. L. G. Carter, formerly of Atlanta, has located in Thomaston for the practice of his profession and has become a member of the Upson County Medical Society.

Dr. B. C. Bird, formerly of Colquitt, has moved to Montgomery, Ala.

The Georgia Baptist Hospital, Atlanta, announces the opening of a complete and thoroughly equipped X-ray laboratory with Dr. James J. Clark as director. Practice limited to referred cases requiring roentgenographic examination or roentgen therapy.

Dr. James F. Pitman announces the com-

pletion of his service in the Medical Corps, United States Army, and the resumption of his practice, Hopkins Building, Decatur, Ga.

Dr. J. W. Ratliffe has located in Atlanta with offices in suite 714 Hurt Building. He is doing a general practice.

Chiropractors Convicted.—It is reported that on May 12 Frances J. Freenor and Simeon Mueller, chiropractors, were convicted at San Francisco, Cal., of practicing medicine without license.

Chiropractor Fined.—J. H. Cairns, of 6241 Kimbark Ave., Chicago, was arrested by the Department of Registration and Education for practicing as a chiropractor without a state license. He plead guilty on June 28 to the charge and was fined \$50.00 and costs.

Plaster Specialist Sentenced.—The supreme court of the state has sustained the decision of the lower court which sentenced "Dr." Till, the so-called "plaster specialist" of Barron county, Wis., to the county jail for six months. The decision was on the ground that the defendant had had a fair trial and was properly convicted.

Dyment's License Revoked.—The secretary of the Georgia State Board of Medical Examiners notifies us that on June 10 the license of Philip Dyment, now of Pasadena, Calif., was revoked. The ground stated were that Dyment did not graduate from the Homeopathic Medical College of Missouri in 1891 or in any other year and that he had a substitute take the examination for him. The evidence showed that Dyment was neither a graduate nor had he ever been a student at the college named. Evidence further showed that a Dr. L. G. Wright, or Chicago, had written the examination before the Georgia board in 1914 by which Dyment's license had been granted. A year later Dyment obtained a license in California through reciprocity with the Georgia board. The fraudulent nature of the man's credentials was discovered through data collected by the Council of Medical Education of the American Medical Association.



Mrs. W. W. Jarrell, wife of Dr. W. W. Jarrell, Thomasville, and Mrs. O. H. Matthews, wife of Dr. O. H. Matthews, Atlanta, deserve the blue ribbons of the Association. See under "Births."

Dr. I. W. Irvin announces the opening of offices in Welch Building, Albany, Ga. Practice limited to diseases of the Eye, Ear, Nose and Throat. The many Atlanta friends of "Ike" will recall his very excellent work at the Grady Hospital and later with Dr. F. Phinizy Calhoun.

The Journal is due an apology to the physicians of Montgomery County Medical Society since they were not included in the list published in the Journal. Montgomery has only five physicians in the county, but all are members in good standing. Therefore, Montgomery is another 100 per cent county.

Dr. A. W. Davis, Warrenton, has just completed a course in Post-Graduate study in Baltimore and New York.

Dr. Spencer Atkinson Kirkland announces the opening of his offices, suite 908 Candler Building, Atlanta. Practice limited to Urology.

Dear Doctor Bunce:—

I am enclosing a typewritten copy of a statement signed by "Dr. J. H. Hammonds" which statement was furnished by Mr. Pattillo, a Justice of the Peace in DeKalb county and on which a burial permit was requested. Also, a copy of Mr. Pattillo's letter is attached. The operation of the Vital Statistics Law in this State places on record many midwives who have no form of license and the names of many quacks who have no license to practice medicine. When the Legislative Committee of the Medical Association of Georgia desires to go into this general clean-up I hope they will permit me to show them some of these documents.

(Signed) W. A. DAVIS, M. D.,  
Director Bureau of Vital Statistics.  
(Copy.)

"Lessie Miller died June 8 with a light stroke of paralysis and a touch of kidney trouble."

(Signed) "DR. J. H. HAMMONDS."

Dr. Wm. A. Davis, Director Bureau of Vital Statistics, Atlanta.

Dear Doctor:—

I am sending you the certificate sent me by "Hammond" that you may see it. The negroes say that he is what they call an "Herb Doctor" and that he cures when all others fail.

It is a sham and worse than a shame that such men should be allowed to take advantage of ignorance and get money from poor ignorant negroes.

(Signed) C. L. PATTILLO,  
Justice of the Peace, DeKalb Co.

Dr. E. T. Coleman, of Graymont, President of the Association, has been spending some time at Indian Springs taking a much needed rest.

Dr. M. A. Fort, of Grand Bay, Alabama, has been elected Commissioner of Health of Brooks county, Quitman, Georgia.

Dr. J. D. Applewhite has resigned as Commissioner of Health of Lowndes county and has been elected Commissioner of Health of Clark county at Athens, Georgia.

Dr. Eugene O. Chimene has been elected temporary Commissioner of Health or Floyd county at Rome, Georgia.

Dr. C. C. Applewhite, P. A. Surgeon U. S. Public Health Service, has been detailed to the University of Georgia for the purpose of establishing the School of Public Health and Hygiene with the medical department at Augusta, Georgia.

Twenty-five counties have adopted the Ellis Health Law.

To Every Physician in Georgia:

Unless County, City and State Health authorities know where diseases exist they can not take necessary precaution to prevent wide spread epidemics.

Please report promptly all communicable diseases that occur in your practice so that we may do our duty towards protecting the 3,000,000 people that are in the state of Georgia. Unless we have the co-operation of the individual physician we can not do our duty as the law prescribes.

Yours very truly,

T. F. ABERCROMBIE,

Commissioner of Health and Collaborating  
Epidemiologist, Georgia State Board of  
Health.

## ABSTRACTS MEDICAL LITERATURE.

M. F. Morris, Jr., M.D.

**Radiotherapy of Brain Tumors.**—S. Nordentoft (Jour. de Radiologie, Vol. 3, No. 7) discusses 18 cases of brain tumors which received roentgen-ray treatment between February, 1915, and the present time. Of this number, 9 are alive and in good health, with the exception of one case of hemianopsia, and one case of poor vision which before treatment amounted almost to blindness. One interesting case was that of a young lawyer who became an imbecile and lost control of urination and defecation. The tumor, thought to be a diffuse glioma of the frontal lobe, could not be localized. Using an aluminum filter of 10 c.m. thickness, Nordentoft submitted the entire head, excepting the occiput, to cross-fire exposures until complete depilation occurred. After five or six days' treatment, improvement was noticeable; and recovery later was complete. Two cases of cerebellar tumor were successfully treated with the X-ray. Another case of cerebellar tumor which failed to improve, although the progress of the tumor was stopped by the rays, went to operation, when a cyst in the cerebellum was found; complete recovery followed drainage of the cyst.

**The Diagnosis of Malaria.**—O'Connell (The Lancet, Feb. 28, 1920), mentions several cases to prove the rather frequent discrepancy between the clinical and the microscopical diagnosis of malaria. Three cases clinically diagnosed as sunstroke, were found, on microscopical examination, to be malignant malaria. Five cases of what was thought to be dysentery were found to be malarial enteritis. Cases diagnosed as influenza proved

to be malignant malaria. Several cases, having a clinical diagnosis of either relapsing or typhus fever, were microscopically shown to be malaria with relapses. In Palestine, where malaria is exceedingly prevalent, some patients, who have no fever and no bad feelings, have bloods literally swarming with the parasites. On the other hand, one cannot find a single parasite in the blood of some who are suffering with typical clinical malaria. O'Connell reminds us that the failure to find parasites in the blood during the first few days of a primary attack of malaria does not exclude the possibility of the disease being malaria.

**Roentgen-Ray Treatment of Pituitary Tumors.**—By exposing different fields on the skull (and not applying the rays thru the mouth), A. Beelere (Medicine, June, 1920), reports that he has succeeded in curing the headache, the vertigo, the nausea and vomiting. The bony changes are arrested. The earlier the treatment is begun, the more is the improvement in vision. To date, these results have persisted for over six years, and, in one case for eleven years. One very interesting case was that of a girl of 16, who had exaggerated growth, obesity, genital infantilism, enlargement of the sella turcica, impairment of vision, and signs of intra-cranial pressure, was so improved by the roentgen-ray exposures that the obesity subsided, the secondary sexual characters developed normally thereafter, and ovarian functioning became normal.

**The Control of Emesis Gravidarum.**—In the Therapeutic Gazette, January, 1920, Levy reports that he had very good results, in the nausea and vomiting of pregnancy, by giving apothesine, in doses of 1-12 gr. to 1-4 grain, in either elixir lactopeptine or liquid taka-diastase. The patient is instructed to eat an ordinary meal within three hours after taking the local anaesthetic. Levy says that these pitiable cases are thereby enabled to retain their food.

**Roentgen-Ray Treatment of Exophthalmic Goiter.**—P. Cottentot (Medicine, June, 1920) relates that, in the typical cases of exophthalmic goiter with the complete set of symptoms, he has been obtaining very excellent results since he began to use large doses of

the rays, applied thru thick filters. The nervous and cardiac symptoms show the greatest improvement, the tremor subsiding with the restlessness. The goiter and the exophthalmos are modified last and least. The functional disturbances are thus improved or cured, while the objective symptoms of enlarged gland and protruding eye are not so greatly benefitted.

**A Chemical Study of Blood Changes Following Roentgen-Ray Treatment of Leukemia.**—Martin, Denis, and Aldrich (American Journal of the Medical Sciences, August, 1920) present some pioneer work regarding the chemical changes brought about by this method of treatment. The skin on the left side of the abdomen, left flank, and left back overlying the spleen were divided into squares measuring four and a half inches on a side. Penetrating rays were applied to about one-fourth of the marked off area, in doses just under the erythema dose, every two days. After each series of treatments, a rest of one or two weeks was allowed. These workers present data on four cases of myelogenous leukemia, all of which were greatly benefitted. The first of these cases is a fair example of the series. That case was a white man of 33 years, who entered the hospital with a white cell count of 752,000; with a total non-protein nitrogen of 110.0 mg. per 100 cc. of blood; with a blood uric content of 6.6 mg. per 100 cc.; and with a spleen which was resting in the pelvis. Roentgen-ray treatment was then begun. On Dec. 24 (44 days after entrance), the blood creatinine was 1.5 mg. per 100 cc. The following Feb. 20, the white blood count was 65,000, the total non-protein nitrogen, 54.0 mg., and the blood uric acid, 7.6 mg. per 100 cc. On March 26, the total non-protein nitrogen was 43.0 mg. per 100 cc. The patient was relieved of most of his symptoms; his color was much improved; and the spleen extended about a hand's breadth below the costal margin. These investigators suggest that, in leukemia, there is present, possibly as a constituent of the white cells, some nitrogenous constituent not accounted for in the present scheme of micro-blood analysis.

**Complement Fixation in Tuberculosis, and a Comparison of the Wassermann and**

**Hecht-Weinberg-Gradwohl System.**—After studying these problems, Rogers (Journal of Infectious Diseases, August, 1920) concludes that the complement fixation test in tuberculosis is a valuable aid, when taken in conjunction with other measures of diagnosis and treatment; that the reliability of this test has not been sufficiently established to be used as a criterion in the diagnosis or to determine the presence of activity in a known case of tuberculosis; that the phenomenon is not a specific antigen-antibody combination, but that it tends toward a group reaction; that the other acid-fast organisms such as the smegma bacillus, the grass bacillus, and the bacillus of leprosy gave the higher degree of fixation. Other substances, such as staphylococci, colon bacilli, and concentrated solutions of peptone gave occasional positive reactions. He concluded further that antigens from living, virulent tubercle bacilli seem to be the best preparations to use in routine tests; and that the Hecht-Weinberg-Gradwohl system, when used with tubercle bacillus antigens, gave a lower degree of fixation than the Wassermann, but, when used with syphilitic serum, the results were the same in 98 per cent of the cases.

#### ABSTRACTS SURGICAL LITERATURE.

E. H. Greene, M. D.

BEHREND, MOSES: Experimental Ligation of the Hepatic Artery.

A preliminary note.

Surgery, Gynecology and Obstetrics, 1920, xxxi, 2.

The death of the patient in the case reported below led the author to make a study of the experimental ligation of the hepatic artery.

A 12 year old boy had been run over by a wagon, the wheels apparently having passed over the region of the epigastrium. He was shocked. A diagnosis of internal hemorrhage was made and his abdomen opened in the epigastric region. The peritoneal cavity was filled with blood. The hepatic artery was bleeding profusely at the caudal end, practically no blood was coming from the cephalic end. Both ends were ligated and the abdomen closed with-



out drainage. Patient did well for ten days, but on the eleventh there appeared perceptible change in the facies; some jaundice and signs of progressive emaciation. Vomited occasionally. He presented the picture of a case of acute yellow atrophy of the liver. He died on the fourteenth day after operation. No post mortem. Ligation of hepatic artery was suspected as cause of death. Following this idea, the writer describes his experiments on animals in the laboratory.

The first experiment consisted in ligation of the main trunk of the hepatic artery. The animal gradually failed, lost weight, respirations increased and death occurred on the fifth day following operation. At post mortem, a marked, acute yellow atrophy of the liver was noted. There were deposits of yellow-stained lymph on the diaphragm and stomach. The author satisfied himself that the hepatic artery had been ligated as he had intended. He has performed the operation on eight animals and all succumbed in from 24 hours to 5 days. The pictures presented at autopsy were as described above, but of varying degrees of intensity.

In a few of the experiments the right or the left hepatic artery was tied. The same picture was noted but the lesion was limited to the area supplied by the branch tied at operation.

Coincidental cadaver work showed the close relation of the hepatic artery to the cystic duct.

The author believes that some unexplainable deaths following cholecystectomy may be due to the ligation of the hepatic artery. A full report of the findings is promised by the author following the completion of the experiments.

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**DOWNES, WILLIAM A.: Congenital Hypertrophic Pyloric Stenosis.** Review of one hundred and seventy-five cases in which the Fredet-Rammstedt operation was performed.

Journal A. M. A., 1920, 75, 4.

The author begins his discussion by calling attention to the fact that Fredet, a French surgeon, originated the fundamental principles of the operation, i. e., longitudinal incision of the serous and muscular coats of

the pylorus, thereby liberating, but not opening the mucous coat. This surgeon then converted the longitudinal incision into a transverse one by suturing. Two years later in 1910, Weber of Germany, recommended the same procedure acknowledging Fredet as the originator. In 1912 Rammstedt noted the advantages of the Weber procedure, but advised omission of the transverse suture and suggested leaving the pyloric wound gaping. This method is commonly used and for Rammstedt's suggestion the author states he should receive credit and the operation styled the Fredet-Rammstedt operation.

The author has operated upon 175 of these cases in a period covering about four years. There were thirty deaths in the series, giving a mortality of 17.1 per cent. Several babies died from two to four weeks following operation, and eighteen babies who had apparently made a satisfactory recovery, died in collapse in from three to seventy-two hours. All were in extremely poor condition, but as surgical intervention offered the only hope for recovery, they were given the benefit of the doubt.

The average age of this group was nine weeks, with a history of symptoms for more than five weeks. Average weight six pounds.

The cause of death for each case is given, such as acute gastroenteritis, complications resulting from poor judgment or bad technic, peritonitis, hemorrhage, etc.

In only one case was there evidence at necropsy to indicate that the operation was inadequate, so far as relieving the obstruction was concerned.

The diagnosis of hypertrophic stenosis is based on the history and physical findings. Forceful vomiting is usually the first sign. Gastric retention, loss of weight, more or less rapid according to the severity of the condition, immediately follows. The size and character of the stools vary with the amount of food passed through the pylorus. Abdominal inspection often reveals visible peristaltic waves in the epigastric region passing from left to right. The author considers this sign of great diagnostic value. The hard tumor is often palpable if suffi-

cient abdominal relaxation is secured. The author has been able to diagnose practically all the cases without resorting to the roentgen ray, but he grants that that instrument is of inestimable value in certain cases.

Medical treatment is justified for a period of from seven to ten days, provided the baby does not lose more than 20 per cent of its body weight during this time. If at the end of this time, the weight has become stationary and there is a general improvement in other symptoms, this form of treatment may be continued, remembering, however, that a sudden relapse is not impossible. If such should happen, operation should be advised. If on the other hand, there is no improvement under medical care, or if improvement is unsatisfactory the sum total is that the baby is worse, it the next, so that after a week or ten days, the sum total is that the baby is worse and should be considered a case of the severe group and immediate operation is indicated.

The author gives some interesting statistics of various surgeons and hospitals concerning these cases and states that it would seem that the majority of pediatricians now believe that surgery offers more than medicine in the treatment of this disease. The mortality among patients coming to operation within four weeks from the onset of symptoms is less than 8 per cent.

**Operation:** The abdomen is opened through an upper right rectus incision one and one-half to two inches in length. Ether anesthesia is always used. The stomach is identified and its pyloric end with the tumor brought into view. The tumor is held between thumb and index finger and a longitudinal incision, one to one and one-fourth inches long is made at the junction of upper and middle thirds. By cautious blunt dissection or spreading of the muscle layer, the mucous membrane should be exposed and allowed to protrude freely into the wound. Bleeding is seldom encountered, but if a vessel is cut it should be controlled. It is not necessary to cover the exposed mucosa. The pylorus is dropped back into the abdomen and after the line of incision is again carefully inspected for bleeding points the abdominal wall is closed in the usual way. The duodenum was accidentally open-

ed three times in the author's series of cases. It was easily closed with fine silk suture, reinforced by omentum. Fifty to one hundred c. c. of physiologic sodium chlorid or glucose solution given under the skin from two to four hours after operation and repeated as indicated is often efficacious. Feeding is begun one hour after operation, first water with gradual addition of breast milk until the fifth day when the baby should be receiving almost its normal caloric requirements.

**Complication:** Loose stools, probably caused by improper management of diet. Post-operative vomiting of a more or less degree of severity. The average stay in hospital of breast-fed babies was fourteen days, and of bottle-fed babies twenty-three days.

Necropsies were obtained in two cases in which the patients died of pulmonary condition a year and half after operation. The pyloric tumor had entirely disappeared in both instances, and with exception of light omental adhesions at the site of the scar, the pylorus appeared normal in every way. The results following the Fredet-Rammstedt operation are permanent and the cure complete.

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### BOOK REVIEWS.

**Practice of Medicine.**—Edited by Frederick Tice, M. D., Professor of Medicine and Clinical Medicine, and Head of the Department of Medicine, University of Illinois, College of Medicine. Foreword by M. W. Ireland, M. D., Surgeon-General, U. S. Army, New York: W. F. Prior Co., Inc., 1920. The first three of the proposed ten volumes of this system have been received. The books, which have the loose-leaf feature, are beautiful in their soft royal octavo binding. The type is very readable; and the paper is of the best quality. The subjects presented in the first three volumes are complete and up-to-date and contain extensive bibliographies. The different articles were written by men who are not only scholarly in their medical attainments, but who are also proficient in the presentation of their knowledge in delightful English. After a perusal of the first three volumes, one is inclined to think that this system will become the most popular of the

present-day "Practices." Prior and Company deserve praise for offering such an excellent work to the medical profession.

—*Morris.*

#### **Symptoms in the Diagnosis of Disease.—**

By Hobart Amory Hare. M. D., B. Sc., Philadelphia and New York: Lea and Febiger, 1920.

The eighth revised edition of this work, by Dr. Hare, of Philadelphia, who is so well-known that we do not include the long list of honorary positions which he holds, is certainly an excellent work. The subject-matter is right up-to-date; the text is very readable, and the numerous illustrations are very illuminative. The only improvement one would expect in the next edition would be a longer discussion of pain as a symptom. Anyone wishing to get, within the compass of one handy volume, a great number of useful facts, arranged in a practical manner, will do well to get this book.

—*Morris.*

#### **BIRTHS.**

Dr. and Mrs. W. W. Jarrell, Thomasville, announce the birth of twin sons, Rembert Luff and John Anderson, on June 22, 1920.

Dr. and Mrs. Smith W. Ray, Jeffersonville, announce the birth of their daughter, Blanche Smith, July 23, 1920.

Dr. and Mrs. O. H. Matthews, Atlanta, announce the birth of twin daughters, Olive Homer and Martha Charlotte, August 25, 1920.

#### **OBITUARY.**

Dr. John L. Branch, the oldest physician of Polk county, died Aug. 1st at his home at Cedartown. Dr. Branch was 85 years old and a Confederate veteran, having served as Surgeon in the Civil War. He was a graduate of Jefferson Medical College, Philadelphia, and was at one time one of the leading physicians of the county, though he did no practice for the past fifteen years on account of failing health caused by advancing years. His last years were spent in retirement on his farm.

W. W. TISON, M. D.,  
Sec. Polk Med. Soc.

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attention.



**PARAGRAPHS OF POLLY DIPSA.****(Censored.)**

Boys, show the August number to your friends who are not members.

Let's make the Medical Association of Georgia a "pacemaker" for other states.

Little five-year-old: "Mama, why don't they give Fords names just like they do automobiles?"

Dear Polly Dipsia:

Since you are a lady doctor I would like for you to give me a good prescription for a bust developer. IMA NUTT.

Dear Ima:

Try running a sanatorium, that worked fine for me. P. D.

Whatever else may be said about endocrine glands, from the present quacking about them, they are certainly not duckless.

Will present methods ultimately give us a toothless and tonsilless age?

Dear P. D.:—

I know doctors who are charging \$10.00 for a Wassermann test made by the State Board of Health for their patients. Is this right? L. U. ETTIC.

Dear Ettie:—

I cannot conceive that it is possible for such a thing to be true. However, a doctor who does this would chloroform a helpless man with both legs broken, in order to steal the splints for stove wood, and then try to convince the helpless creature that he is better off without them because, in this way he would develop extra joints with which he could better do the shimmy.

P. D.

Dear P. D.:—

Didn't you doctors try to kill the chori-practic bill because we are curing diseases that you can't cure? CHIRO.

Dear Chiro:—

We are using no smaller guns than "75s" in our arsenal. Spray pumps and parasiticides are handled by our health officers.

You claim to cure diseases by spinal adjustment, and I will take time here to say that the man who falls for this should have his adjusted by stringing the vertebrae upon a mullin stalk, hang his hat on the top, sneak off the earth, and leave this effigy to represent him as a man.

Dear P. D.:—

Is there an instrument owned by oil corporations by which they can discover oil?

PETE ROLE.

Dear Pete:—

Yes. It is a process, though, and not an instrument. The method is as follows: They organize a corporation and send out men to sell stock. They procure their information in the following way: The man who is fool enough to buy stock is known to have a knot upon the end of his spinal column serving the sole purpose of preventing his spinal cord from unraveling out; and, that the knot contains no neurones, but just exactly enough sapogenic oleagenous substances to grease one gimlet.

J. D. CHASON, M. D. GORDON CHASON, M. D.

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Bainbridge, Georgia.

Drs. Chason & Chason, Proprietors.

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# Adrenalin in Medicine

## *1—Its Physiological Action.*

THE active principle of the medullary portion of the suprarenal gland and other chromaffinic cells, adrenalin, has been used by physicians throughout the civilized world since the day we introduced it, almost twenty years ago. It has attained a position of importance in the medical equipment that was hardly dreamed of in those early days when comparatively little was known concerning its physiological action. Today its effect on most of the tissues is pretty well defined.

Adrenalin affects body tissues in a manner strikingly similar to the effect produced by stimulating the sympathetic nerve system. Thus, if the sympathetic nerves govern the contraction of certain unstriated muscle tissue, adrenalin, too, will contract it. If, on the other hand, the tissue in question is supplied with inhibitory impulses by this nerve system, adrenalin relaxes it.

These actions, however, are exerted neither through the medium of the sympathetic nerves nor directly upon the muscle fibres themselves. The receptive organs for these adrenalin impulses are the points of union of the sympathetic

nerves and the unstriated muscle fibres—the myoneural junctions.

Probably the most important action of adrenalin is stimulation of the muscular coats of the arterioles. At first there is acceleration of the pulse rate, but the rise in blood-pressure which results from vasoconstriction soon excites the vagus centre and as a consequence the heart-beat is slowed and strengthened. Besides this indirect vagus action, adrenalin stimulates the heart directly, thus producing more complete evacuation of the chambers. In large doses, however, adrenalin predisposes the heart to fibrillary contractions.

The stimulating action of adrenalin is exerted also on the dilator muscle of the iris (dilates the pupil); the muscular fibres of the uterus and vagina; the retractor muscle of the penis; the pyloric and ileocecal valves; the glycogenolytic function of the liver; the salivary glands and the glands of the mouth and the stomach.

Adrenalin relaxes the muscular walls of the esophagus, stomach and intestines. Also on the muscular coat of the bronchioles adrenalin has a relaxing effect, due probably to vagus stimulation.

PARKE, DAVIS & COMPANY



# THE JOURNAL

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No. 5

### ORIGINAL ARTICLES

#### \*THE DIFFERENTIAL DIAGNOSIS OF TRACHOMA AND FOLLICULAR CONJUNCTIVITIS (EYE ADENOID) IN CHILDREN.

T. E. Oertel, M. D., Augusta, Ga.

Medical literature is not lacking in numerous articles dealing wholly or in part with the subject of this paper, tho as one reviews them he can not but be impressed with the lack of clearness which is often evidenced and also with the fact that the line of demarkation between the two conditions is not definitely drawn while many writers confuse the subject in the most hopeless way.

My purpose is to try to set in some order the views expressed in papers dealing with the subject during the past few years and to point out some of the most cardinal features which may aid in a correct diagnosis of inflammatory conditions of the conjunctiva in children with the presence of folliculosis.

I have limited the discussion to the question of these conditions in children because it is here that most confusion arises, and also because of what to my mind has been an error in diagnosis in recent inspections of school children in a town near my own home where it has been declared that a considerable number of school children have been found suffering with Trachoma.

In my own locality during an experience of twenty odd years I have seen but three cases that I considered to be Trachoma. Recently it has been my good fortune to have examined some thirty thousand Russians in the prison camps of Germany among whom were found a large number afflicted with Trachoma. One time I had a special hos-

pital with about five hundred cases of this disease alone.

For the sake of clearness it will be best to consider the conditions separately.

#### Trachoma.

The etiology of trachoma is a subject that has received extended investigation and produced much discussion. Numerous organisms have been found associated with the disease and have at one time or another been credited with being the causative agents.

The description in 1907 of the so-called trachoma bodies<sup>1</sup> was received with universal satisfaction as the possible solution of the question and a hope was thus raised that at last we had at our command a ready means of laboratory diagnosis which would prove of inestimable value to the clinician.

These bodies have been cultivated outside the body by Noguchi and Cohen.<sup>2</sup>

In a previous paper<sup>3</sup> these gentlemen distinguish "Follicularis Conjunctivae" in which the disease is limited to the lower conjunctivae and "Conjunctivitis Follicularis" more chronic and extending to the upper lid and fornix but distinct from trachoma. They then say, "Of the 250 cases studied 66 were of the marked type. *These occurred principally in children and might be spoken of as borderline cases, since clinical differentiation from trachoma was impossible.*" Italics are mine. The trachoma bodies were found in 9 of these 66 cases, in the remaining 57 "repeated and careful search in both smears and sections failed to reveal any bodies." In this report of their investigations they considered these bodies as probably "an etiological factor in an independent conjunctival affection which is not complicated by pannus or cicatrization and which clinically resembles trachoma with acute manifestations or the papillary stage of blennorrhoea gonorrhoeaca."

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

It has been asserted by Williams that the trachoma bodies are aggregations of certain haemophilic bacilli found in conjunctival inflammations.<sup>4</sup>

Alter and Bonser seem inclined to accept the trachoma bodies as the etiological factor of trachoma.<sup>5</sup>

On the other hand many investigators do not agree with this view and Ray<sup>6</sup> quotes McCallum as asserting that "If the material containing these bodies be passed through a Berkfeld filter the bodies are no longer detected yet the filtrate will be found to be infectious."

McKee<sup>7</sup> found the trachoma bodies in all cases of acute trachoma but also in other conjunctival inflammations and in the normal conjunctiva,<sup>8</sup> Herzog<sup>9</sup> believes them to be involution forms of the gonococcus.

In view of the light at present before us we must consider that the etiology of trachoma is still in doubt.

As to its infectious nature most agree that it spreads more rapidly when large numbers of persons are brought together in unhygienic surroundings, as in mines, factories, tenement houses or prison camps.

It is believed to be transmitted through the agency of the common wash-bowl, towels and the like, as well as by personal contact.

Authors usually describe two types of trachoma, the papillary and the follicular. There seems to be little reason for this as the one merges into the other in all cases and the ultimate result of the untreated case is the same.

Sehereschewsky<sup>10</sup> says, "The subjective symptoms of the initial conjunctivitis are similar at first to those of the ordinary form.

"There is the usual discomfort and difficulty or inability in using the eyes and the sensation of itching or burning or of a foreign body between the lids.

"The secretion may be profuse and is usually watery or somewhat mucopurulent."

Foster<sup>11</sup> recognizes a fulminating and slow type and does not divide the disease into three or four stages as do most authors. He takes exception to the usual division into papillary and follicular forms for the reason that in the so-called papular variety granulations are present, as can be demon-

strated by the microscope, but are small and hidden by the swollen surrounding tissues and are thus overlooked. He believes that in all cases of trachoma pannus is at some time present to some degree, ulceration of the cornea is frequent on account of infection by the specific virus or some accompanying organism or follows the irritation of trichiasis or to interference with the circulation due to pressure of the contracted upper lid.

He believes that scar tissue can be demonstrated in all cases very early in the disease and that this, together with absence of the normal blood supply are the chief diagnostic signs upon which we should depend.

Safford<sup>12</sup> asserts, "At the beginning trachoma is indistinguishable from a conjunctivitis from any other cause."

After a careful review of the subject as outlined in the literature during the past ten years we may safely formulate the following conclusions:

1. Trachoma is an infectious disease of the conjunctiva, the specific agent of which is not determined.

2. In the earliest stage it may not be distinguished from other infections of this tissue or there may be a mixed infection.

3. It is essentially chronic in its course and continues, without treatment, to advance over a period of months and years.

4. The tendency is towards the destruction of the conjunctiva with the formation of scar tissue.

5. Pannus is frequent as are corneal ulcerations consequent upon irritation from the roughened lids and subsequent infection.

6. More or less damage to the conjunctiva always exists.

7. Upon the extent of this depends the train of symptoms and results that may follow.

8. Total blindness is not infrequent in neglected cases and may even supervene with every care.

9. During the earlier stages of the disease folliculosis is always present, often to a marked degree.

10. Secretion may be profuse but is often watery and scanty.

In spite of the above being the consensus of opinion, the author believes that it

is possible for an epidemic of trachoma to pursue a milder course than one would believe from the literature alone.

While it is true that at times, we might even presume that always in this country, trachoma is prone to present the symptoms described, my observation of the disease among the Russians convinced me that the reverse may be true.

Among the hundreds of patients in the hospital in Camp Lamsdorf, Germany, there were only a few that were severe cases. Many were well advanced in the disease and yet showed only a moderate amount of scar tissue in the lids and none of the severe symptoms of classic late trachoma, though they had never been treated.

They even asserted that they had never had any considerable discomfort and did not know that they had an eye disease. These were peasants of a low type of humanity and yet they made fuss enough about other small ailments. We classed as trachoma many cases of mild folliculosis because of the fact that between these and the worst types there were all manner of gradations of the disease and it was possible to detect scar tissue in the conjunctiva in many of the cases that were very mild in type and in which the folliculosis was only moderate.

Among my assistants were three Russian physicians of large experience in treating trachoma and these men all agreed that we were dealing with genuine trachoma and that they often met with mild cases among their countrymen.

Quite contrary to the usual opinion our cases responded to treatment in a gratifying way and even the bad ones showed marked improvement in a comparatively short space of time. Doubtless many of them have relapsed since treatment was discontinued as this is the tendency in all cases so that it is not safe to give any but a guarded prognosis.

For this state of affairs I have no explanation unless there may be an acquired immunity in a people among whom trachoma has been prevalent for generations.

Such an assumption is not born out by general experience. One may point out,

however, that the negro is almost exempt, while the Indian is unusually susceptible to trachoma. Berry<sup>13</sup> states that "Of the three hundred and twenty-five thousand American Indians, all that remain, we find sixty-five thousand suffering from trachoma."

That trachoma is endemic and epidemic in some sections of our country is well known. In the Eastern United States, aside from those cases among the foreign population of the great cities it has existed for many years in the mountainous regions of North Carolina, Tennessee, Kentucky and to a less extent in Georgia.

It is my firm conviction that in other sections of this state, I mean in the regions other than the mountains of Georgia, and this district comprises but a small part of our state, trachoma is either unknown in most communities or occurs only as isolated cases which have been introduced from outside. I believe the same to be true about South Carolina from which state I have seen many patients with a variety of diseases of the eyes.

#### **Follicular Conjunctivitis.**

Folliculosis of the conjunctiva may be caused by any irritant and may occur in the adult as well as in the child but there exists in children a condition of hypertrophy of the lymphatic structures of the conjunctiva that is mentioned in all text books upon eye diseases and is usually treated as a distinct entity. It is with this that we are concerned.

In 1912 I read before this body a paper in which I called attention to the relation of adenoid activity in the conjunctiva and the throat and naso-pharynx of children.<sup>14</sup>

In a later publication I designated the condition as "Eye Adenoids."<sup>15</sup> At this time I had not read the paper of Alger<sup>16</sup> in which he suggests the name of "Conjunctival adenoids."

It is to my mind an unwarranted refinement to differentiate forms of folliculosis according to their location in the conjunctiva or the degree of the condition. Fuchs<sup>17</sup> begins his description of the malady in the following words. "Follicular catarrh is characterized by the presence of follicles."



Further description says little more than this. For our present purpose it is not necessary to go into any exhaustive investigation of their histology as we have already seen that they are not thus to be distinguished from the granulations of trachoma.

It is only needful to consider the following in regard to them as they occur in the eyes of children.

Upon eversion of the lids in a typical case there will be seen small nodules, semi-transparent in character and often arranged in rows.

They have been likened to frog spawn but are more opaque than this, are often ovoid in shape and stand out boldly from the unchanged areas of the conjunctiva islands of which even in the severe forms can be readily observed. The surface of the conjunctiva raised by these subconjunctival masses may be quite pale or even of a deep red where congestion is considerable. It is asserted by some writers that the follicles do not occur upon the bulbar conjunctiva and that they are never numerous upon the tarsal surface of the upper lid.

This is not the case as I have observed them in many cases in both situations and often the tarsus is entirely covered with them, in which case they are more firm in character and are usually smaller and rounder than those of the lower lid. In the upper fornix on the other hand, they are often large and succulent with a tendency to a flattening of their surfaces so that they give the appearance of cobble stones. I do not hesitate to assert that situation and number of the follicles are in no wise diagnostic.

Careful investigation will show that the blood vessels of the conjunctiva are normal in their situation and distribution and that there is an absence of scar tissue, two points of the greatest importance. There is also an absence of the papillary hyperaemia which has caused trachoma to be divided into a follicular and papillary stage by so many writers.

Above all is the fact that I have already mentioned that these "Eye Adenoids" are simply the expression in the conjunctiva of a general tendency towards lymphatic hypertrophy and it will be found that the lym-

phatic structures of the throat and elsewhere have undergone a similar enlargement.

Jervey<sup>18</sup> in a recent article on the subject uses the following language: "In upwards of four hundred cases examined by the writer in the past few months every single one, 100 per cent, had, or had had, hypertrophied tonsils and adenoids."

When we seek for the causative agent of folliculosis of the conjunctiva we must find that producing the general adenosis. The fact remains that the two go hand in hand.

The condition is general among children of all classes and conditions but I think is found more frequently in those who are poorly nourished and who are in unhygienic surroundings. I have, however, seen it in the children of the rich and the poor, in the weekling and in the robust, in the city child and in the offspring of the farmer, in the white and in the negro. Recently I have examined a number of the pupils of the public schools of Augusta with the following result.

#### WHITE.

Grade.	No.	Cases of eye	
		adenoids.	Per cent.
Kindergarten .....	97	33	34.02
First .....	237	53	22.3
Second .....	185	36	19.46
Third .....	179	18	10.6
Fourth .....	161	21	13.05
Fifth .....	121	15	11.14
Sixth .....	300	17	5.8
Seventh .....	140	7	5.00
High School .....	362	1	.26
Total .....	1782	201	16.8

#### NEGRO.

Kindergarten .....	46	1	2.17
First .....	166	6	3.33
Second .....	104	4	3.83
Third .....	86	3	3.47
Fourth .....	82	1	1.21
Fifth .....	71	2	2.78
Sixth .....	48	1	2.09
Seventh .....	29	0	0.
Total .....	642	18	2.8

Only pronounced cases were included, such as might be mistaken for trachoma being considered the only ones of importance in this survey.

Two things are at once apparent, first the small number among the negroes. They all occurred in children of apparently pure negro stock.

The second thing is the large per cent of cases in the younger children which decreases as the grade proceeds indicating older children, until in the high school, among 362 pupils, there was only one case of folliculosis of marked degree and this was not sufficient to produce eye symptoms.

Subjective symptoms accompanying eye adenoids vary with the case, often the child will when questioned deny that there has been any discomfort whatever, but many cases complain of burning, itching or scratching of the lids as tho some foreign body were in the eye, and there may be secretion either watery or muco-purulent, with marginal irritation.

Often in these cases we are dealing with a double infection of mild degree, or irritation due to uncorrected refractive errors or to overuse of the eyes.

All authors agree that in simple folliculosis the ultimate end is spontaneous cure without the formation of scar tissue or damage of any kind to the conjunctiva.

I have observed several cases which did not terminate quite so favorably, a chronic conjunctivitis remaining after the follicles were atrophied, but here again there may have been some mixed infection that was not detected.

The purpose of this paper is to call attention to the ease with which mistakes in diagnosing these two conditions may take place in order that we may the better differentiate them in the future.

Axenfeld<sup>19</sup> comments on the frequency with which what he calls "school folliculosis" a poor name, is mistaken for trachoma.

Let us now compare some of the more recent reports of investigations for trachoma and see what reductions may be drawn therefrom.

A survey made by Clark<sup>20</sup> in the mountains of Virginia and West Virginia is of interest.

He says "The whole subject of trachoma is confused because the diagnosis is based on the clinical aspects of the disease plus the experience and personal equation of the examiner." He then gives this result of positive findings.

Cases according to age:

5-10	11-15	16-20	21-30	31-40	41-60
171	180	37	23	18	14

I wish to call attention to the comparatively large number of cases between the ages of five and fifteen. Yet we know that trachoma is a disease of adult life rather than of childhood.

Even at the risk of taxing your patience I must quote at length from the report of King<sup>21</sup> on trachoma in the schools of Porto Rico, where he examined 4,202 children with a finding of 401 cases of trachoma and 231 cases that he classes as "suspicious type of disease."

He is best heard in his own words: "Except in a comparatively small number of the severely infected nearly all denied having felt anything in the eye.

"Probably many did not and others were at an age when they could not easily express their feelings. The symptoms of chronic trachoma may give little trouble and are often unnoticed until attention is directed to them by examining physicians. Careful questioning elicited in many instances an admission of having had one or more of the following symptoms: Burning, itching, reddening of the lids, margin or eyeball, sensation of grit beneath the lids, lachrymation, photobia, lashes stuck together in the morning, muco-purulent secretion at the inner canthus, etc. Not many admitted having had acute attacks but children are prone to forget, and I have found that frequently such history can be had from the parents when denied by the child. These cases presented every gradation of granulation from a few elevations along the tarsal margin to the abundant crowded masses filling every bit of space in the conjunctiva in both lids of both eyes. A moderate amount of medium sized granulations along the tarsal margin and in the superior cul-de-sac was the rule. No attempt was made to classify them into papillary or follicular form.

"Both forms were seen but the majority

were mixed in varying degree. In somewhat half the number the inferior conjunctiva was involved, sometimes to a greater degree than the superior, but in only one or two cases was it limited to the lower lid. Usually both eyes were about equally effected but it was not uncommon to see a marked difference in the amount of granulation. In about one per cent. one eye only appeared trachomatous, the other being normal or so nearly normal that taken alone no suspicion of trachoma would be aroused. Such cases emphasize the liability to error when only one eye is examined.

"Very thick, stiff lids, so characteristic of long standing cases were seldom seen. Scar tissue, generally as fine lines, was often noted but not in the majority of cases, probably because that stage of the disease had not yet been reached. There was damage to vision in only three of the total number of cases."

The above is a very complete and surprisingly accurate description of the eye adenoids so commonly found in the inspection of school children, not because they are in school but simply because they are of that age when eye adenoids, as well as throat and other adenoids are common in the human economy.

Aynsworth<sup>22</sup> says "With reference to follicular conjunctivitis it is the writers opinion that many, if not most, of the cases diagnosed as trachoma in school children are not trachoma at all but follicular conjunctivitis. If this be true the number of school children suffering from genuine trachoma is small compared to the number given."

It is quite easy to multiply reports such as that quoted from King but this would only prove tiresome.

As a contrast there is the survey of Foster<sup>23</sup> made in the mountain section of North Carolina and South Carolina, regions where trachoma is known to exist. In North Carolina he examined 10,680 school children among whom he found 33 suffering from trachoma. In South Carolina he examined 3,325 children and found only one case of trachoma, this being in a negro. In 16 different schools he examined 2,324 negroes and "only one case of trachoma was found among them."

Here is a report the correctness of which is unquestioned.

The limit of this paper does not permit of further data or argument.

It is my earnest desire to impress upon the profession the great care that is necessary in the examination of children, particularly those of our schools, that a simple condition may not be mistaken for a serious disease and the child and the community made to suffer in consequence.

I think fewer errors in diagnosis will be made if you will bear in mind the fact that eye adenoids are simply an expression, in a special tissue, of a general adenoid hyperplasia and that trachoma does not have this manifestation.

This fact, taken in conjunction with the history of the case, the presence or absence of scar tissue, altered vascular supply and pannus should, in children at any rate, render the diagnosis simple.

In eye adenoids I believe expression is indicated in severe cases at the same time that tonsils and throat adenoids are removed.

The milder cases yield to simple treatment or spontaneously disappear after the throat has been cleaned out, or the refractive error corrected.

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#### DISCUSSION ON THE PAPER OF DR. T. E. OERTEL.

*Dr. A. G. Fort, Atlanta.*—After hearing the statistics of so many cases given by my friend, Dr. Oertel, I hesitate to make any remarks relative to the prevalence of follicular conjunctivitis, as I have been taught to call the disease, and its relative frequency compared with true trachoma. The idea that we have no trachoma in south Georgia and have it only confined to the mountain of north Georgia and the mountains of Tennessee and North Carolina is incorrect because of this fact: South Georgia today is made up of one-half of south Georgians, and one-half from the mountains of north Georgia, Kentucky and Tennessee, and they brought their trachoma with them.

In the examination of thousands of school children, a casual examination of their eyes showed a very large percentage of what we termed at that time false trachoma. We called it false trachoma because we did not know what it was, and we were afraid to say it was not trachoma. These cases usually got well after the removal of the adenoids and after being placed upon any type of tonic treatment or proper types of diet, proper sanitary surroundings, with a small amount of local treatment to the eyes. There was practically no scar tissue left. While examining children for these diseases of the eye we did find occasionally a child with some evidence of scar tissue, and also a velvety conjunctiva, and these cases we felt inclined to call true trachoma, for the reason that they did not heal up and get well so promptly, although a number of them did get well after prolonged treatment, and having no specific means of differentiating between the two we termed them true trachoma because the evidence was more in favor of true trachoma.

I have noticed that a good deal of this disease appears in negroes. I have reference now to follicular conjunctivitis. In one section of Georgia it was interesting to note that we could cure them of their follicular conjunctivitis only after they were relieved of their malarial manifestations. As long as they had chills and fever, or as long as they had the malarial plasmodium present in their blood, they did not get well. But after they were cured of their malaria and relieved of their intestinal parasites they got well without any further treatment.

As to the special point which possibly led our friend, Dr. Oertel, to bring this subject before us for discussion, I will say that in one town in South Carolina the school children would have trachoma every year, and as long as the children were under treatment they never made any attempt to have them quarantined from the schools at all, but allowed them to continue on. We noticed this, that when follicular conjunctivitis was present in families, we would find one child with the disease and could expect to go to that home and find other children with the disease. Those who had light hair and fair

complexion of the Irish type had the disease more often than did those of the Spanish or French type. Why, we do not know, but it is true.

I appreciate most highly the doctor's paper and thank him for it.

*Dr. Dunbar Roy, Atlanta.*—As to how many make the mistake in the differential diagnosis between trachoma and follicular conjunctivitis, it is hard to say. A large majority of physicians use one term to cover a multitude of diseases which are distinctly different. Granular lids with the majority of physicians means four or five different conditions. In the first place, they speak of granular lids when the patient has a blepharitis marginalis, in which there are scales forming between the eyelashes. Another person will speak of granular lids when the patient has follicular conjunctivitis. Another person will speak of the condition as one of phlyctenular conjunctivitis. These conditions occur largely in the springtime. They will call them granular lids. All these diseases of the eye are mixed up under the one generic term of granular lids.

Follicular conjunctivitis is an absolutely distinct thing from trachoma. Its relationship with adenoids and tonsils is accidental. It does not mean that because a patient may have enlarged tonsils and adenoids he will have follicular conjunctivitis. But it is a disease *sui generis*. It is absolutely distinct of itself. There is more or less trouble about making a differential diagnosis in follicular conjunctivitis. The condition exists on the inside of the lid especially on the upper fornix, and if you take a patient before the light and look at the eye, you will see granules around the bulbar conjunctiva, around the edge of the cornea, and it is absolutely a distinct follicular conjunctivitis. These follicles are seen in the conjunctiva.

In trachoma, in the first stages you get a little irritation around the edge of the cornea; you will see a little infiltration. You do not see that in follicular conjunctivitis at all.

Another point to which I desire to call attention is that I do not think the doctor meant to imply that the removal of the adenoids and enlarged tonsils would cure a case of follicular conjunctivitis. It will not do so, and why leave the follicular conjunctivitis, and let the individual go on having a chronic conjunctivitis all the rest of his life with a muco-purulent secretion about the lid. Why not relieve the patient of this condition when it is absolutely curable? If these granules are simply massaged with the roller forceps, squeezing out the follicles in the undersurface of the lid, and using massage with cotton dipped in 1 to 1000 bichlorid of mercury, in a month's time the conjunctiva will be found to be smooth and the individual will have no further trouble. It is not a question of removing the adenoids and tonsils. The important question is to make a differential diagnosis. I see the class of cases under discussion almost every day, and seldom do we ever see trachoma in the south. I have been practicing for twenty-eight years and rarely do I see true cases of trachoma. But I do find what is called vernal conjunctivitis. About fifteen years ago I read a paper in Boston on "The Prevalence of Vernal Conjunctivitis in the Negro." Negroes are especially susceptible to it, but in whites we do not see quite so much of it. If you examine the palpebral surface you will see granulations similar to what you find in follicular conjunctivitis. Cases of vernal conjunctivitis are the hardest things in the world to manage. I have been working at it for years with a view to mitigating it, and when cold weather comes it disappears, proving that it is vernal conjunctivitis or spring catarrh, which is quite prevalent among the negro race.

I see no reason why any experienced practitioner should not be able to make a differential diagnosis between these diseases. When he does make it and knows he has a case of follicular conjunctivitis, it can be cured, and the individual put in a good healthy condition.

*The President*—I shall ask Dr. Schmeisser to give us the differential diagnosis between trachoma and follicular conjunctivitis.

*Dr. Harry C. Schmeisser, Atlanta.*—I have made no special study of trachoma, but follicular conjunctivitis has interested me very much. Dr. Oertel's paper as a whole has been intensely interesting to me.

I should like to bring forward this view. I think Dr. Oertel touched on it or had it in mind, namely, that in children an acute infection calls forth a reaction of the lymphoid tissue of the entire body, while in the adult an acute infection calls forth the polymorphonuclear leukocytes and acts upon the genetic tissue of that cell. That is what he meant when he said in follicular conjunctivitis the adenoid and tonsils are simultaneously involved. I think he is on the right track, but I can bring no evidence to you that by removing these masses of adenoid tissue he can probably remove the follicular conjunctivitis, and why? In these true masses of adenoid tissue there is most likely a nidus of infection, and by removing the adenoids and the tonsils he is removing the infection which has probably caused stimulation of the lymph tissue throughout the body, and you as oculists see it manifested in the eye as follicular conjunctivitis. Possibly the disease is due to a focus of infection in the tonsils. This treatment of follicular conjunctivitis is based upon accepted facts in pathologic anatomy, in that way differing from the gentleman who spoke last (Dr. Roy), who suggested treating the same by squeezing the follicles and massaging, with which I cannot agree exactly, because he is producing, it would seem, a temporary effect. While he is working locally to eliminate the lesion, he is not getting at the fundamental cause. There is a toxemia somewhere that produces a proliferation of the lymph tissue.

Again, what is this little nodule in the conjunctiva? It is nice to know what we are dealing with. It is a mass of lymphoid tissue and lymphoid tissue is composed of the tiniest cell we know, a small round cell with a round, deep staining nucleus and a small amount of cytoplasm. It is the smallest white cell in the circulating blood and deposits lymphoid tissue. This mass of tissue is always present in the conjunctiva, but normally it is inconspicuous. Under infection this lymphoid tissue proliferates. The cells are called on to produce more and more cells, and the small nodules become large follicles.

The oculist has a great opportunity in using the eye as a diagnostic aid in general conditions of the body. An acute miliary tuberculosis can be clinched by the oculist, and that is an interesting point. The eye is the only place again where tuberculosis is manifested to the outside world. You can actually see the miliary tubercles in the fundus of the eye in cases of acute miliary tuberculosis and thereby clinch the diagnosis. I just bring that forth as a fact. You as oculists have a wonderful opportunity to settle the diagnosis; you can see inside the eye the same as genito-urinary men see in the bladder by the use of the cystoscope. You have a wonderful way of getting at the local manifestation of general diseases, and that is an important point we want to keep in mind.

*Dr. T. E. Oertel, Augusta (closing the discussion).*—I wish to thank the gentlemen for their discussions and for the nice things they have said, but I am sorry I cannot agree with all of them.

Dr. Fort spoke of the term false trachoma, which is absolutely unscientific.

*Dr. Fort.*—I admitted that.

*Dr. Oertel.*—We want to get rid of this loose nomenclature. It is not worthy of us as scientific men.

Dr. Roy seems to think that the diagnosis between these two maladies is easy. Gentlemen, it is not easy. I must differ with my friend, Dr. Roy, in that regard. The differential diagnosis is so difficult that I spent three days in the Surgeon-General's Library looking over the subject recently. You can get authority for any opinion you want to. It is so difficult of diagnosis that many good men seem to be all mixed up about it. It seems to me, the stumbling block lies here rather than elsewhere, that in certain cases of the simple condition of which I have spoken we do have irritation of the eyes from some other cause, either a mixed infection or something else. We have not time to point it out, but when we have a manifest irritation together with a hyperplasia of the lymphatic structures (and I am exceedingly obliged to Dr. Schmeisser for saying so well what I should have liked to have said), we must then pause and consider whether this be trachoma or not. No one here is more alive to the tremendous importance of not missing a case of trachoma than I. On the other hand, we must be quite careful not to submit our children to a diagnosis of trachoma, which means very much, and not to have the whole community upset by having a diagnosis of trachoma erroneously made of these children. If the diagnosis were easy, the mistakes that have been made would not have been made pro and con. For that reason it is not an easy question. I have brought this subject before you because it is now being agitated more or less, and we will be liable to have inspections, and should have inspections of our children throughout the State. We should have systematic inspection. Because trachoma has not existed in the community, there is no reason why it should not exist, and we must guard against implantation because it is a very serious matter.

Dr. Fort, I think, spoke of children in whom the diagnosis of trachoma had been made of being allowed to go to school while they were under treatment. I cannot agree with any such procedure as that. If we have a case of trachoma, that child has no business in school for its own sake and for the sake of the community. If it is not a case of trachoma, then the diagnosis should not be made until we are sure with what we have to deal. If we have a case of simple folliculosis from any cause, it is not difficult to determine it in a reasonable length of time. This is such a large subject that I could talk all day about it.

I am exceedingly obliged to Dr. Roy for mentioning the term granular lid. Here again we have a bastard term. We have no such thing as granular lid, and if the medical profession could forget that term, we would advance a step in our scientific terminology. Every man, woman and child, that comes into my office with anything the matter with the eyes have told me that the doctor said he had granular lids. We should not use that term. It is trachoma, or else it is some other specific entity.

As to operation upon these children, I think this: It is my habit, when the lid condition is severe, to do such an operation as seems to be indicated. In



the majority of cases, it is unnecessary if the case is mild, even if we have at the same time hypertrophy of the tonsils or adenoids, as we unfortunately call hypertrophy of the pharyngeal tonsils. At the same time, when this is operated on, the eyes may be operated upon and be well in a week, but the majority of our cases do not need operation.

## MOBILIZATION VS. IMMOBILIZATION\*.

Theodore Toepel, M. D., Atlanta, Ga.

Most surgeons usually devote more time to the methods of immediate surgical relief and have not always been thinking in the term of motor function. In civil practice there has been little comprehensive effort up to the present time to salvage the potential cripple.—Who will venture an estimate of the number of avoidable deformities among the army of industrial cripples produced in Georgia every year?

I make no apology for inviting attention to a mode of treatment which has met with little favor among the physicians before the war. That it had not been more freely adopted appears to be due to two facts. First, the methods advocated were diametrically opposed to the traditional teaching; the newer method had not been studied by the profession and was therefore unappreciated.—The pathology of the results of mobilization in the treatment of injuries, especially sprains, fractures and wounds of the extremities seems, indeed, to be limited to the axiom of Aristotle, "**Movement is Life.**"

As to the subject of sprains, I will limit myself solely to the concluding paragraph of my paper, "Treatment of Sprains," read at the Fitzgerald meeting in April, 1908. It is as follows: "Allow me to say that, notwithstanding the fact that traditions of the profession required absolute rest of the affected parts after injury to the joint, we now know conclusively that massage and then exercise applied early, and with a suitable degree of skill and perseverance, effects a more speedy cure in most cases of sprains than absolute immobility, and prevents both the loss of movement, which usually occurs, and

the muscular atrophy which is the natural result of absolute rest and immobility."

In civil practice it is still more or less the custom to treat a fracture as a broken bone and not as a motor with a broken part, there having been no real compulsion to obtain complete and early recovery in extremity injuries. Mobilization must be regarded in the light of a therapeutic measure, the "dose" of which is regulated by the nature of the complaint it is calculated to cure. Thus, for a recent fracture of the surgical neck of the humerus, the treatment is limited, on the first day to free movements of the fingers and wrist; half movements of the elbow, and only such movement at the shoulder, as is unavoidable during these manipulations. But in a week's time adduction, flexion and extension of the arm should reach 50%—75%, and a minute amount of rotation may be called for, in suitable cases before a sufficient dose has been administered.

The use of splints, usually of plaster of Paris are necessary in the treatment of most fractures. As soon as possible splints are discarded, though it is often necessary to leave them in place for a short time. In these cases a mixed method of treatment is adopted, massage and mobilization being practised daily after only a brief delay, the splints being applied between times.

For example, in a case such as Potts fracture with much displacement, should the displacement fail to reduce as a result of mobilization and massage, massage should be applied, reduction carried out under an anaesthetic, and the parts should then be retained in position by a suitable splint. Union will be sufficiently firm by the end of a week of immobilization for the daily removal of the splint while movements and massage are administered. At the end of another week or ten days, they may be discarded altogether. Any essential reduction which such methods fail to effect must be performed by open operation.

When a limb is immobilized, not only are no steps taken to restore the circulation but a condition of total disuse is enforced, which, since atrophy comes of disuse, must itself

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th, 7th, 1920.



lead to further loss of vitality. Even a healthy bone tends to undergo atrophy and that so rapidly that the bones of a child's limb which has been placed in plaster are liable to undergo spontaneous fracture after the second month. That external splints fail to restore circulation is also shown clinically by the fact that a leg still shows signs of edema when a plaster splint is removed a month or six weeks after fracture. Moreover, a patient's first attempt, however cautious, to walk often causes a swelling of the limb, which may return as much as six months afterwards as a result of exertion.

With patients beginning to walk after treatment by mobilization and massage this complication of convalescence is temporary, if present at all. It may be said that persistent edema never occurs, unless the newly gained freedom is abused.

Fracture of a bone is a severe injury and pathology teaches that repair after injury is more rapid where there is a generous supply of blood. An example is furnished by fractures of both fore-arm bones, the radius, the lower end of which is more vascular than the corresponding point on the ulna, being invariably found to unite several days earlier than the ulna. It therefore follows that a broken bone will unite more rapidly in a limb where the circulation has been restored by massage than in one where the enfeeblement of circulation is allowed to persist.

That callus ossifies more quickly is proven by radiography. In all probability the rapidity of the formation and ossification of callus is due largely to mobilization, the fact is incontestable that callus is formed more rapidly when movement is allowed than when it is withheld.

A very short confinement of a limb in a plaster splint will suffice to secure a marked stiffness in the joints. A patient confined to bed may scarcely move hip or ankle for weeks, but the minute amount of movement that takes place at the hip is enough to insure that the full range of motion remains unimpaired, while, unless special precautions are taken to administer a minute amount of mobilization to the ankle, foot drop occurs as a natural sequence.

Passive movement, however slight, will suffice to prevent the formation of adhesions,

provided that movements are performed frequently and in all directions possible. An adhesion is, in its earliest formation, nothing more than a granulation tissue, any such granulations laid down are readily broken by the smallest amount of movement. In the part where the circulation has been restored by massage, and where, as a result, repair is active, the localized hyperaemia, which results from the tearing of the fine granulations, aids the process of repair. This repair would consist of two definite processes: the stimulation to renewed activity of the granulations which are engaged in the repair of the bone, muscle or other structure, and the absorption of those not so engaged.

Doubtless the granulation tissue, which is to aid in the healing of muscle or ligaments, is formed to excess as the result of movement, in like manner an excess of callus is formed; but, equally the excess does not invade surrounding structures unless the amount of movement is likewise in excess of that which is beneficial. We must bear in mind that minute doses of mobilization increase daily in amplitude, that few fractures in the body have been found to fail to unite with considerable firmness at the end of a week or ten days, and that a very unstable union will suffice to permit of a very wide range of movement, if the dose is administered with care and judgment.

Dr. G. W. Hawley, M.D., (Bridgeport, Conn.), says: "While the problem of the restoration of the function of the damaged motor skeleton is not a new one, no one has fully understood the importance of daily motion or the evil results of delay." In civil practice, nearly every one has been more or less conscious of the unfortunate results of failure to begin motion early, and everyone is familiar with the convalescent stiff joint. Dr. Hawley makes the following remarkable statement which supports the underlying principles of this paper and warrants the general adoption of the mobilization method of the treatment of fracture by every practitioner. "To those who have had occasion to observe and direct the effort to re-establish early function in recent wounds of the extremities, it is no exaggeration to say that the results have been, on the whole, little short of marvelous."

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## DISCUSSION ON THE PAPER OF DR. TOEPEL.

*D. T. C. Davison, Atlanta.*—I think we all realize the importance of not maintaining a limb in splints too long, nor should we apply passive motion and massage to limbs and joints too early.

I would take issue with Dr. Toepel, if I understood him rightly, in regard to one point. He said that he treated a fracture of the surgical neck of the humerus with passive motion in the first five days with rotation and abduction. We all know that callus does not harden in that length of time.

I would like to have him explain that point a little further in regard to the passive motion of broken bones in the first two weeks, because I do not believe any callus ever forms and hardens earlier than two weeks.

*Dr. Theodore Toepel, Atlanta, (closing the discussion.)* In reply to Dr. Davidson, I said passive motion should begin in the fingers and hand and, then gradually work up to the shoulder joint proper and thereby stimulate circulation. I did not say that I begin passive motion in the shoulder joint. No one should do that. In the treatment of a fracture of the surgical neck exercise your wrist joints and elbow joints, and from there gradually work up to the shoulder joint in a week or ten days, and then you prevent ankylosis. In this way you keep up the function of the muscle and prevent the customary stiff shoulder.

*A Member.*—About when do you begin passive motion in Pott's fracture?

*Dr. Toepel.*—A person has to be careful in the treatment of Pott's fracture. It is advisable to splint the part to get proper support, but do not allow immobilization to remain for five or six weeks, as has been the custom in the past. You should put on such a splint as will support the joint, permitting massage, one week after the splint has been applied, and then begin general passive motion to prevent the formation of adhesions, thereby encouraging mobilization.

### \*AIMS AND SCOPE OF THE GEORGIA PEDIATRIC SOCIETY.

T. D. Walker, M. D., Macon, Ga.

Only thirty-two (32) years ago was the first full professorship of Pediatrics granted, and that was to Dr. Thomas M. Rotch, at Harvard, in 1888.

Before that time Dr. Jacobi was called Clinical Professor of Pediatrics in the New York Medical College. He, in 1860, established down on Thirteenth Street in New York, a few beds for children, and hence through bedside instruction was given the professorship. Interest in children increased, and men began to donate more money and time to the study of children; various guilds and nurseries were organized, but the first construction work was done by Dr. Francis Huber, of New York, who in

1898 donated money to support twelve beds for children at Roosevelt Hospital, N. Y.

An agreement was reached between the Roosevelt Hospital and Columbia University whereby bedside instruction in diseases of children could be given students. The "Babies Hospital" under Dr. Holt which has probably done more to advance the knowledge of children than any other institution in the country, was incorporated June, 1887, only 33 years ago.

Boston has had a children's hospital for many years, but only recently built an institution for infants. Within the short space of time of 33 years interest and knowledge of children have increased, until at the present time there are something like one hundred full professorships of Pediatrics, and many hundred men devoting their time to children alone, and many institutions devoting their time to research work with children. This interest has invaded Georgia to such an extent that in 1918 there were enough men interested to organize the Georgia Pediatric Society in Savannah.

Shall we "carry on?" Shall we be a definite vital factor in Georgia Medicine? Shall we continue to let Pediatrics be considered a side issue of medicine, and we, considered by many, as usurpers? Can we not as an organization and individually foster all things for child betterment? Should we not make this society a group of men whose purpose individually and collectively, is to improve child life and help children to grow into normal men and women? This is not prompted by selfishness, but by a sentiment produced by the conviction that children need more care than they have received in the past. Since this "change" is of our choosing, can we accomplish all that we should without adding to the practical and material, some of the ideal. Aside from our livelihood, do we not owe something to children? It seems to me that we owe more in this way, than those in other lines of Medicine, for there is more to be done, and if we are leading the way, there is much tradition and prejudice to be overcome and many constructive things that might be done.

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What are some of the things that can be done? First, our hospital service could be improved. The Pediatric service should be a definite entity with all children in the hospital under its care.

Social service workers would be a wonderful asset (if the proper ones were secured), they would not only benefit the children, but would teach health to the family. Milk stations, health centers, all should be encouraged.

It was interesting to me to know that during the famine resulting from the siege of Paris, infant mortality fell 40%, due to the fact that mothers nursed their own infants. A similar decrease occurred during the great Lancaster Cotton Famine, due to the fact that the mothers could not work in the factory, and did not have the money to buy cows milk for the infants.

During the recent occupation of Lille by the Germans, when the adult population lost about 40% in weight, there was a reduction in infant mortality due to the fact that the mothers nursed their own infants. Should we not then disseminate the knowledge of the value of Breast Feeding, and if this cannot be done, the value of pure cow's milk.

Much has been said on this subject, but still many do not understand. I think our public schools offer a vast field for usefulness, and I believe that we could offer some suggestion as to medical school inspection that would be helpful. Many of those children are defective, both mentally and physically, and by the application of the Binot-Simone test and correction of physical defects, much good could be accomplished.

Let me quote you a few statistics regarding school children of America. There are about 22,000,000 of them.

About 1%, or 200,000 are mentally defective.

Over 1%, or 250,000 are handicapped by organic heart disease.

At least 5% or 1,000,000 have now or have had Tuberculosis. A danger to others as well as themselves.

At least 5%, or 1,000,000 have defective hearing, which unrecognized gives many the undeserved reputation of being mentally defective.

25%, or 5,000,000 have defective eyes. All but a small per cent of these can be corrected, and yet a majority of them have received no attention.

15 to 25%, or from 3,000,000 to 5,000,000 are suffering from malnutrition, and poverty is not the cause of this serious barrier, to healthy development.

15 to 25%, or 3,000,000 to 5,000,000 have adenoids, diseased tonsils or other glandular defects.

10 to 20%, or 2,000,000 to 4,000,000 have weak foot arches, weak spines or other joint defects.

50 to 75%, or 11,000,000 to 16,000,000 have defective teeth.

75%, or 16,000,000 have physical defects which are potentially or actually detrimental to health. (Thomas W. Wood.)

In Georgia we have our proportion of the foregoing.

Therefore we as a group of men devoting our lives to the care of children should aim to demonstrate the fact that the child is a definite "charge." Its scope includes all the children of Georgia and our results will be commensurate with the thought, energy and effort expended.

#### DISCUSSION OF DR. T. D. WALKER'S PAPER.

*Dr. W. A. Mulherin.*—I merely wish to stress a few points mentioned in Dr. Walker's paper. The aims of the Georgia Pediatric Society, as I see them, are threefold: 1. To secure better pediatrics for Georgia. 2. To encourage a more fraternal spirit amongst those interested in pediatrics. 3. To secure a more hearty co-operation, and a better study of pediatrics from the medical profession of Georgia.

Better pediatrics for Georgia will be secured along three lines: 1. Higher education of the pediatrician along his special line, and a better education of the general practitioner in pediatrics. 2. Education of the laity in hygiene and proper feeding of their infants and children. 3. Hearty co-operation and proper interest in all things pertaining to infant and child welfare, by the profession and laity. To successfully carry these aims to completion, appears to me to be a few of the essential purposes of the Georgia Pediatric Society.

As regards the scope, I think it necessary to emphasize the fact that it is broad-gaged, and not circumscribed by selfishness of a few of the Georgia Pediatricians. By this I mean eligibility to membership consists in being a member in good standing in the Medical Association of Georgia, and desiring better pediatrics for Georgia, and manifesting a willingness to work to that end. Therefore, every member of our State Association is eligible to membership, and I firmly believe that, year by year, our membership will steadily grow, for I feel convinced that every Georgia physician is de-



sirous of helping infants and children in our State, and is willing to work for that purpose.

We have been organized for two years, and already a few good results are to be seen. In preceding years, in our State Medical Association Meetings, we have averaged one to two pediatric papers on the program. Today we have ten papers, all of them broad-gaged and on important and up-to-date subjects, and the great pity of it is that we are not before the general assembly in having them read and discussed. I readily appreciate that, out of necessity, we had to be put in a separate pediatric section, owing to the large number of papers to be read this year.

Again, as a part of our accomplishments, I might mention that this year our State Board of Health has secured, from the Georgia Legislature, some \$15,000.00 for the purpose of establishing a State Bureau of Child Hygiene, which will be very instrumental in helping us accomplish the aims and objects of our society. Furthermore, I might state that Georgia is the only southern state that has a State Pediatric Society.

It was decided at the last Southern Medical Association meeting in Asheville, by the Pediatric Section, that active work be instituted to have each southern state organize a State Pediatric Society, for the purpose of obtaining better pediatrics for the south.

We might therefore pride ourselves on being the pioneer State of the South in this particular pediatric move.

Lastly, as a result of our organization, might be mentioned that the American Child Hygiene Association is at present anxious and desirous to come into Georgia, and extend to us a helpful hand in all matters pertaining to infant and child welfare. It is therefore up to us, gentlemen, to not only keep up our present good work, but to endeavor, if possible, to double our efforts along the line of the aims and scope of our pediatric society.

We are carefully watched, not only by the southern states, but by the north, east and west, in the commendable organization of our State Pediatric Society.

I wish to congratulate and thank Dr. Walker for his very excellent paper, and for bringing this subject before the association for free discussion.

*Dr. W. L. Funkhouser.*—The baby and child as never before is recognized as the nation's greatest asset. We as physicians and especially those of us doing periatric work, should appreciate our obligation to the future American citizen. The public and especially the women are alert to any effort which has as its aim the saving and the improvement of her child. Is not her child our child?

The State Board of Health is soon to inaugurate a Child's Bureau, to safeguard the interest of the child life of this State. All civic forces are going to work and work hard. We, who know, should direct their energies. Each physician in his respective locality should be a leader in this child welfare work for his locality. The Georgia Pediatric Society should support and advise the State Board of Health in their constructive work for child welfare.

## ADDRESS OF THE PRESIDENT PUBLIC HEALTH SECTION MEDICAL ASSOCIATION OF GEORGIA\*.

J. P. Bowdoin, M.D., U. S. P. H.,  
Adairsville, Ga.

It is with sincere pleasure that I have the honor to greet you on this your second annual meeting.

The Section of Public Health of the Medical Association of Georgia should and will be one of the most important as well as instructive of our annual meetings. Preventive medicine is perhaps the most important of all the many departments of the science of medicine. This particular phase of the work has created a demand for trained sanitarians, engineers and health executives that has grown more rapidly than the supply. It is not every physician who is suited for this field of labor; it requires training, study along certain lines, and executive ability. A few of the medical colleges have organized Public Health courses, and are now giving instructions to the men who desire to specialize. The demand for these men in our State is being stimulated by the adoption of the Ellis Health Law by the grand juries of the different counties. This law was passed only a few years ago, yet we have had twenty-three counties to adopt it. The Boards of Health in some of these counties are not able to procure men for these positions because so few physicians have taken the examination and qualified. Under this law a physician is required to stand a satisfactory examination and be recommended by the Georgia State Board of Health. While speaking about the Ellis Health Law I would like to call your attention to a recent ruling of the Attorney General of the State, in which he decides that each county in our State has a Board of Health whether the grand jury of the county has selected a physician for the Board or not; that is, two members, chairman of the County Commissioners and the Superintendent of Schools, are named in the law. They constitute a quorum, and are therefore authorized to act

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on all matters that come before such a board. I would urge you, however, to ascertain if this Board has been completed by the selection of a physician by the grand jury of your country. Every county in our State should have an active physician on its Board of Health, and see to it that it has a Board that functions; the law appoints it; you need it. The law requires you to report your infections and contagious diseases to this Board; do so, thereby compelling it to perform its duty.

One of the best assets to the Health Officer and physician is a capable, painstaking, conscientious nurse, one who knows her sphere, her duty, and has the tact to perform that service. The day of the visiting nurse has dawned, and we believe that she will grow to be one of the physician's best allies. She can be of inestimable value among the poor and needy of our State. She should have our encouragement and guidance. In supplying nurses the American Red Cross has been and will no doubt continue to be of great service. Not only have they been furnishing nurses, but they have been conducting training schools or classes for home nursing that should better fit a number of women for service, not only in their homes, but in the communities in which they live.

The State has enjoyed the greatest co-operation of the U. S. Public Health Service in the past year that has ever been given to it. The service rendered we are sure is appreciated by every physician in our State, as well as the citizenship as a whole. Several men have been assigned to work in the State, each an expert in his line. Each has given a splendid account of himself, and their services under the direction of your State Board of Health have been of inestimable value to us.

The Department of Vital Statistics has been doing exceptionally fine work. We hope that very soon with your co-operation we shall be included in the registration area of the U. S. Government. Until we reach this end we cannot rest satisfied, and each of us should lend his individual support to its consummation.

Two bills passed by our legislature that

were urged by your section in particular and the physicians of the State as a whole will be of great value.

The home for the feeble-minded has been secured. This institution will be opened some time this summer; it will be located near Augusta. Preference will be given according to the law to children and women of childbearing age. The sum of one hundred thousand dollars was appropriated. It is estimated that about 3% of our school children are feeble-minded. This home will offer great opportunities to the unfortunate, and we bespeak for it your loyal support.

The other bill referred to was one creating a Department of Child Welfare. Owing to the conditions under which we are living in the unsettled reconstruction period following the war, this department has not yet begun active work, but it is expected that within the next few weeks it will be thoroughly organized. It has been indeed a difficult task to get the proper executive for this work.

Coming under the work of child welfare we might also mention the new board created by the legislature last summer, to-wit: The State Board of Public Welfare, with an appropriation of fifteen thousand dollars. This Board has the supervision of Orphans' Homes of the State, as well as every charitable and corrective agency in the State, and will no doubt be of inestimable benefit. The bill requiring medical examination and freedom from venereal diseases in the male prior to the issuing of a marriage license was unanimously recommended by the committees in both the Senate and the House. This bill is now ready for passage, and let us urge you individually to make it your business to see your Senators and Representatives and call their attention to the importance of this legislation.

An intensive program over a small area for the eradication of Malaria was undertaken the past summer, sterilization by the use of quinine being the chief method employed. The results were very gratifying, and the work has grown greatly in popularity and extent. It is of the utmost importance, and those of us who are interested in the preven-



tion of disease should give our wholehearted endorsement to all efforts looking to the eradication of this awful disease.

The State has made advancement in sanitation. This has been more marked in the rural counties and communities than in the cities. There are several reasons for this, chief among them being the almost prohibitive cost of sewer construction. Many rural communities and small towns and cities have begun the installation of sanitary closets. This work should be encouraged by every physician. The surface closet is responsible for much of the illness, suffering and death throughout the State. We cannot rest satisfied until the last surface closet has been made safe, every home has been provided with one, and each home is also screened against the fly and mosquito. So long as we tolerate the open privy or no privy at all we will of necessity have Typhoid, Dysentery, Infantile Paralysis, Hook Worm and other intestinal diseases.

The cities of our State with their organization have been keeping up the work of sanitation and health measures as best they could under conditions as they exist. None have reached, we dare say, the ideal that they have set for themselves, but each one has done the best it could under the circumstances. We are quite sure that all of our cities could use with decided advantage a much larger appropriation than they now have.

In the prevention and cure of Tuberculosis we have made improvements the past year. The Sanatorium at Alto has grown in popularity and efficiency until now we have one of the best institutions to be found anywhere. I say popularity advisedly, as you know that there has been a time when this institution was not popular. The waiting list is now a long one; in fact, the want of accommodation is tending to defeat the very purpose of the institution, as only incipient cases are taken. We hope that soon we can have a greatly enlarged Tuberculosis Sanatorium at this ideal location.

According to the reports of infectious and contagious diseases reaching the Georgia State Board of Health, the venereal diseases lead all the rest. Some weeks more

than 50% of all cases reported are venereal; they usually run from 20 to 25%. It is my opinion that Syphilis and Gonorrhea offer us the most serious problem that we have to solve; it is one that requires the co-ordination and co-operation of all the medical men of our State. We ask you to do your individual duty to the community in which you live, to your State, to your Nation, but above all to do your full duty as the medical adviser, the medical confidant of the young boys and girls of your commonwealth and to the unborn generations. On each of you rests this awful responsibility; we have not done our full duty in the past, no, not one of us. Let us throw away our false modesty and prudery and tell truth. With every physician in his own practice educating, warning and treating the public, we can, with just enforcement of the laws we have, eradicate venereal diseases. Let us from today resolve to do our individual duty to the mothers-to-be in our community, county and State. Will you not do this? You can, then why not? Track the law; do your whole duty; hew to the line, let the chips fall where they may. Think of the thousands who die; think of the blind babies; think of the more than a thousand insane at Milledgeville; count the preventable operations you know that have been done on innocently infected women. We know that you will do this public service; we know that you will aid this preventive program. New blanks have recently been sent you by the State Board of Health; use them promptly, regularly.

We desire to congratulate each physician who has been giving this his attention, and we feel sure that those who have not done so will soon fall in line. As a rule the physician leads his community in all matters of public advancement, and it is right that he should do so.

One of the needs of our time, it seems to us, is the organization of county or community centers where free examinations can be made and under certain conditions treatments given. In this day of wonderful advancement, of intensive study and better equipment, in this day when men are called upon to do better work than ever, we see our



physicians forming groups that work can be done, not only in diagnosis, but in the actual treatment. This is well; it could exist in almost any community where several men are in almost daily contact. By uniting they could have X-ray machines, chemical laboratories and other means of diagnosis and treatment that singly they could not afford. We need get-together centers for the good of the physician as well as the public, and especially to care for those who are financially unable to care for themselves.

We also need every health organization in every county and city conducted under the legally authorized body for this work in our State, the Georgia State Board of Health. The State Board should be the clearing house for every other Board of Health; their work should be done in unison, that no discord should arise. The entire State should be a unit for the prevention of diseases and the reduction of conditions that conduce to their propagation and spread. To the State Board of Health we should all look for help in time of need, for advice and for aid in our diagnoses. We expect their laboratories to supply us the best that there is to be had, and they do; in turn we should give to this central organization the most loyal support possible. We should advise with this Board on the improvements that they can make and the service they can render, also consult them on the sanitary problems of our towns and communities. By so doing we would enable them to render us and the people still larger and better service. We should see to it that our law-makers supply this Board a sufficient amount of money to enable them to furnish this service and properly function.

What Kipling said about armies can be applied to the work of disease prevention:

"It is not the guns or armament,

Or the money they can pay,

It's the close co-operation

That makes them win the day.

It is not the individual

Or the army as a whole,

But the everlasting team-work

Of every living soul."

## SPINAL ANESTHESIA\*.

W. L. Cooke, M.D., Columbus, Ga.

So much has been written and said of the dangers and uncertainty of results in spinal anesthesia that I almost hesitate to bring the subject before you. However, my experience with it has led me to the following conclusions with regard to its use.

I. It has a definite place in the surgery of today, such as patients with the cardio-renal syndrome; those with advanced arteriosclerosis; and those suffering from any serious pulmonary lesion, or where for any reason the respiration is interfered with.

II. A great many patients positively refuse to take a general anesthetic, also there are those who have such a morbid dread of a general anesthetic, that its administration would be fraught with danger.

III. In patients suffering from profound shock, due to a mangling injury to the lower extremities, where any operation is demanded, this form of anesthesia is indicated, because here the very nature of the anesthesia prohibits shock by the blocking of the sensory paths of the cord.

IV. It may be used with absolute assurance of perfect anesthesia in any operation of any magnitude below the umbilicus. Some writers claim that the anesthesia holds good for operations in the upper abdomen but I have not tried it in this region yet.

V. In my hands it has been an absolutely safe procedure. I have used this method of anesthesia in all kinds of operations from a case of simple hemorrhoids to a complete hysterectomy, and from a simple amputation of the leg up to a bone graft for ununited fracture of the femur. I do not know exactly how long the anesthetic effect lasts, but I have done operations that required anywhere from fifteen minutes up to almost two hours, without the patient experiencing any pain whatever.

There are several agents used as the anesthetic such as cocain, tropocain, stovain and novocain. Cocain is very toxic when injected into the spinal cord, and should

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

never be used. I have used none of these except novocain, and have gotten such uniformly good results from this that I do not care to change. The novocain is carefully weighed out in two grain doses, and each dose hermetically sealed in glass ampules, which are then sterilized in the autoclave along with the dressings.

Now as to the technic of the procedure itself. The patient is always given a hypodermic of morphine 1-4 grain and hyoscine 1-200 gr. about one hour before the operation is to begin, or preferably two hours before and then another hypodermic of 1-8 grain of morphine one-half hour before the operation—this is to allay any nervousness on the part of the patient.

The patient is placed on the operating table, either in the sitting position with shoulders bent well forward, or lying on the left side with knees well flexed on the abdomen, thus widening the spaces between the spinous processes and laminae of the lumbar vertebrae. I select the space between the third and fourth lumbar vertebrae when operating on the perineum or lower extremities and between the first and second or second and third lumbar when the abdomen is to be opened. With an ordinary hypodermic syringe a small amount of 1-4% cocain solution is injected into the skin and muscles over the proposed site of the spinal puncture, to prevent the pain caused by spinal needle.

The skin is then punctured with a sharp knife to allow an easier entrance of the spinal needle; the latter is then introduced directly in the median line into the subarachnoid space. Four or five c.c. of cerebrospinal fluid are allowed to run out into a sterile glass, and in this fluid the novocain is dissolved, which it readily does. And I wish to lay special stress on this step in the technic, as I believe here lies the greatest secret of success and safety in this method of anesthesia.

The solution is now slowly injected and the needle withdrawn. The patient is now turned on the back, and where the abdomen is to be opened, should be placed in moderate Trendelenberg position from two to five minutes in order to get the anesthetic to the

higher levels of the cord. Care should always be taken to keep the head well elevated on pillows both while in the Trendelenberg position, and during the operation, to keep the anesthetic away from the vital centers in the medulla.

I have had a few patients to experience some slight nausea and vomiting in the course of operations on the abdomen, but this has not happened in any case where the operation did not involve the abdomen. However the vomiting has never been of such an extent as to interfere with the operation. I have never had any alarming symptoms supervene, however there is occasionally quite marked pallor and faintness. Post-operative nausea and vomiting is extremely rare and I have had patients who did not miss a meal. The violent post-operative headache which is generally ascribed to spinal anesthesia, I have not noticed.

In order to demonstrate the wide range of this method of anesthesia, I wish to report briefly the following cases:

Case I. Mrs. A., a white woman, age sixty-five years was operated on in January, 1919. During convalescence from influenza pneumonia, she suddenly developed thrombosis of the right popliteal artery with ensuing gangrene of the foot. The condition of her lungs precluded a general anesthetic, so I used the spinal method and amputated just below the knee. This patient went to sleep on the table and did not wake during the operation. She made an uneventful recovery.

Case II. G. S., colored girl about eighteen years of age, was operated on in March, 1919. She had a complete inversion of the uterus. The operation consisted of a vaginal hysterectomy. Her recovery was uninterrupted.

Case III. J. L., negro woman about forty years old was operated upon in February, 1919. The diagnosis was ununited fracture of left tibia, of four months standing. A graft three inches long was removed with bone engine from right tibia and transplanted into the freshened ends of the fracture. This patient had her head raised high enough to watch the whole operation. She made a smooth uninterrupted recovery.



Case IV. M. S., white woman, age 30 years, was operated on in April, 1919. A fibroid uterus complicated by double pus tubes and all the adhesions which would accompany this condition, was removed, also the appendix. Her recovery was uneventful.

Case V. W. W., white man, aged about seventy, was operated on in September, 1919. He had a large prostate which completely blocked urination. He had a very bad heart and kidneys also quite pronounced arteriosclerosis. I removed the gland by the perineal route. His recovery was retarded somewhat by an epididymo orchitis of the right side, otherwise it was uninterrupted.

Case VI. J. I., white woman, age forty-five, was operated upon in August, 1919. Diagnosis was carcinoma of rectum involving posterior vaginal wall. The lower portion of the rectum, about three inches in length, was removed along with the posterior vaginal wall. The rectum was mobilized sufficiently to be brought down and united to the skin. Her recovery was complete and uneventful.

Case VII. W. B., white man age about forty-five, was operated on in February, 1920. Diagnosis ununited fracture of the right femur of two or three months standing. The fracture was loosened up and the fragments shortened about one-half inch to allow apposition. A graft five inches long was then removed with bone engine from left tibia, and transplanted to the medullary cavity of the fractured femur, after which a plaster cast was applied. This operation required about two hours.

In conclusion, I wish to say that none of these patients experienced any pain during the operation and none of them had any disagreeable post operative sequelae, which could be attributed to the method of anesthesia.

### PLAGUE WORK IN GEORGIA.

The city of Savannah is having a survey made to determine if there are any plague infected rats in their city.

The city authorities appropriated \$3,500 and requested the U. S. Public Health Service to make the survey. Dr. W. S. Bean, of the U. S. Public Health Service, is in

charge of this work. To date about 2,500 rats have been caught and examined. No plague infected rats have been found.

Dr. W. F. Brunner, City Health Officer is to be congratulated on taking this step to protect the port of Savannah and the State of Georgia from becoming infected with plague.

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### OUTLINE FOR THE CLINICAL STUDY OF PATIENTS.

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#### With Suggestions for the Care of the Record and the Cross Indexing of Diagnoses.

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Charles Edward Dowman, A.B., M.D.,  
F.A.C.S., Atlanta, Ga.

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#### The Care of Case Records.

**The Numbering of Patients:** There are many acceptable methods of numbering the case records in one's private practice. Some prefer the continuous method and others the method of beginning a new series each year. The latter has so many advantages that it is to be recommended as the more desirable of the two. When a patient first reports for examination, his name and address are entered in an alphabetically arranged ledger, and before his name, is placed the number following that given the preceding patient. For example, 20-150 indicates that this patient is the 150th patient examined in 1920. This number is carried on all records of this patient during this particular illness.

**The Preservation of Records:** All records are best kept on ordinary letter-sized blank paper of good quality. The various sheets are kept in a permanent individual folder, on the top of which is entered the number and name of the patient. These folders have many advantages over the card or book form of case records, in that the folder can also carry all letters and letter copies pertaining to the case, the original laboratory reports, photographs, etc. In other words, all data pertaining to the case are thus kept together.

**Temporary Filing of Records:** While the patient is under active treatment the record is kept in a temporary alphabetical file.

**Permanent Filing of Records:** When the case ceases to be an active one it is ready to



receive the final diagnosis and be filed in the permanent file. This filing is done in chronological order, i. e., serially according to the numbering. Before going to the permanent file, however, it is carefully reviewed and on the back of the folder the final diagnoses are written. The number of the case is put on the various diagnosis cards according to the method to be described below, and an index card made which carries the patient's name, number, and list of diagnoses. The record is now ready to be filed away permanently.

**Cross Diagnosis and Name Index:** There are many acceptable methods for the classification of diagnoses. It is important for every physician who wishes to keep a careful record of his cases to adopt and stick to one of the standard methods of the cross-filing of diagnoses. One of the most thorough methods is that used by the Massachusetts General Hospital, The Boston City Hospital, The Carney Hospital, and the Peter Bent Brigham Hospital. This method has the added advantage of being extremely simple when once started. A small book which acts as a key to this method can be obtained from the Massachusetts General Hospital, Boston, by sending the registrar of this institution 85c. According to this method all diseases are classified under 41 sections. Section 1 for example, contains all specific infectious diseases; Section 2, diseases due to animal parasites; Section 3, diseases of metabolism; Section 4, diseases peculiar to infancy; Section 5, diseases due to physical agents; Section 15, diseases of the nervous system; Section 20, diseases of the jaw, teeth and gums; Section 24, diseases of the intestines; Section 37, diseases of the female generative organs, etc. Under each section are listed in alphabetical order the various diseases which may occur. In the back of the key is an index of all diseases, arranged alphabetically, which refers to the specific section under which each particular disease falls. In arranging the card index three different colors can be used. For example, blue cards may be used for sections, yellow cards for the sub-sections, and white cards for the specific diseases. When the physician re-

views his completed case he enters on the back of the cover of the record the various diagnoses which have been made. In front of these diagnoses is placed the numbers of the section and the sub-section to which the diagnoses belong. Before filing the case record in the permanent file the number of the record is placed on the white card under the proper section. In this way at least 150 numbers can be entered on each white card. Such a system of filing requires not more than 12 inches of space.

In addition to this cross-index of diagnoses it is well to have also a name index. This requires one card for each patient, on which is entered the patient's name, a list of diagnoses, and the case number. These are kept in an alphabetical file.

It can readily be seen that such a method of filing will allow one to obtain in a very short time the numbers of all the patients which he has had under observation who have had a particular disease. Also according to this method prominent symptoms can be indexed so that with practically no trouble a physician can obtain the records of all patients having a particular symptom which he may wish to review.

### The Record.

No.	Name.	Age.	Sex.	Race.	Married or Single.
	Occupation.	Business Address.	Residence Address.		
	Referred by.	Date.			

**Present Illness.** There is a definite value in inquiring into the present illness before questioning in regard to the family and past health. Every patient has uppermost in his mind the symptoms which caused him to consult a physician and he wishes to go immediately into his tale of woe. He is thus unwilling to be questioned at length in regard to the health of his family, etc., until he feels that the physician is thoroughly acquainted with the whys and wherefores of his present illness. After he has thus unburdened himself, he is in a much better frame of mind to be questioned in regard to things which otherwise would seem irrelevant to him. Such a method is also of great advantage to the physician, as he is in a better position to draw out facts in the family and past health which might bear directly on the present illness if he first obtain a detailed account of the prevailing

symptoms. For the sake of clearness the various symptoms should be recorded under separate paragraphs, each paragraph being numbered 1, 2, 3, etc. These symptoms may be mentioned either in the order of their gravity to the patient, or in the order of their development, i. e., chronologically. The latter is by far the most logical. Each paragraph should be headed with a complaint, as for example, 1. Headache. The complaint should then be inquired into in detail, as for example, when first noticed, whether it has been continuous, its location, its character, etc., until all important facts in regard to this particular complaint have been brought out and properly recorded. Not until this exhaustive inquiry has been made should the physician ask for the next symptom noticed. It may sometimes be necessary to listen to a disconnected story before the above logical method of recording can be undertaken. A certain amount of tact, however, will enable the physician to guide the patient's account along the chronological channel and thus save much valuable time. After obtaining a complete paragraphed account of the present illness, it is often of value to add a paragraph headed TREATMENT in which should be concisely stated such treatment as the patient may have had for the present complaints while under the care of other physicians.

**Family Health.** In recording the family history, inquiry should be made into the state of health of all members of the patient's immediate family. If the father, mother, sisters, or brothers are dead, the cause of death and the age at death should be stated. If living, whether well or not. If not well, the nature of the illness. If the patient be married, the length of marriage should be stated, the condition of the wife's or husband's health, the number of children living and health of same, and the number of children dead and cause of death of each. It should be recorded whether or not there were premature children or miscarriages. The patient should then be questioned in regard to the presence of nervous or mental diseases, tuberculosis, cancer, nephritis, alcoholism, etc., in such relatives as uncles,

aunts, cousins, grandparents, etc., and all disclosures of a positive nature recorded.

**Past Health.** For the sake of completeness, inquiry should be made into the health at different periods of life, for example, during infancy, from 3 years to age of puberty, from puberty to 20 years of age, and then the following decades. Specific questions should be directed in regard to the various infectious diseases, the menstrual history, venereal diseases, traumata, etc. As a check on the foregoing the various systems should then be taken up in their order, and positive or negative disclosures recorded.

**Examination.** Although a thorough physical examination should be given all patients, it is but natural that in private practice the elaborateness of the examination will depend largely upon the nature of the disclosures brought out in the history of the present, family, and past health. For example, there would be little value in making an elaborate examination of a patient who presents himself on account of a simple incised wound. In this brief outline, however, it is taken for granted that the patient has sought medical advice on account of symptoms which justify and demand a thorough clinical study. The art of inspection, palpation, percussion and auscultation should therefore be brought into play, so that each system receives its proper attention, before beginning the more elaborate special examination which has been suggested by the train of symptoms. Such a special or local examination naturally depends upon the indications which the record thus far has disclosed. If the case be one of a neurological nature, a careful systematic neurological examination should then be begun; if clearly a rectal case, the attention of the examiner should naturally be directed towards making or having made a thorough rectal examination, etc. A carefully arranged account of the examinations should be added to the record.

**Laboratory, X-Ray, and Other Special Examinations.** These examinations should be made according to the indications. By the time the physician has completed his general examination, he is usually in a position to



know what accessory aids are necessary in order to give him the necessary data for a correct diagnosis. Written reports should be demanded of those called upon to give this additional information and a copy of these reports added to the patient's record.

**Summary.** The physician is now in a position to study the record thus far completed, and summarize the findings, so that at a glance the essential facts in the case can be reviewed. This can best be done under two heads, namely, **Subjective Findings and Objective Findings.** Under Subjective Findings are tabulated the essential symptoms, while under Objective Findings are tabulated the various positive findings brought out in the examination.

**Impression.** Under this head the physician should state clearly the impressions he has gained from his study of the individual case. If a positive diagnosis has been made it should be so stated. If not, the probabilities should be stated and the reasons briefly discussed.

**Proposed Treatment.** Here should be outlined the treatment which should, according to the opinion of the examiner, be instituted.

**Treatment.** Under this head should be included such treatment as is carried out. If the patient be admitted to a hospital the date of admission and name of hospital should be entered on the record. If the case be one in which a surgical operation is performed, full operation notes should be added. These should state the name of the operator, assistants, and anesthetist; the character of the anesthetic; the type of operation; the incision; the condition found; what was done; the type of closure and the suture materials used; the condition of the patient during and at the end of operation, etc.

**Course.** Under this head notes should be added from time to time under their proper dates, giving the progress of the case.

**Pathological Findings.** Under this head should be recorded the pathologist's report on such operative specimens examined, or in case of death and autopsy the anatomical findings.

**Examination on Discharge.** Here should be recorded the findings of an examination made when patient ceases to be under active observation. A comparison with the findings before treatment was instituted can thus be made.

**Follow-Up Notes.** True estimate of the results of any treatment can only be made by "following" a patient through many years after treatment. Every physician should have some system by which he can gain periodic information as to his patient's condition. These notes should be added to the record.

78 Forrest Ave.

### MIGRAINE THERAPY.

Benard Fantus, Chicago (*Journal A. M. A.*, Aug. 7, 1920), has used with excellent results in the treatment of migraine a mixture recommended by T. Lauder Brunton consisting of sodium salicylate, 1 gram, and potassium bromid, 2 grams. It is essential that the dose be given at the earliest possible moment when the headache is approaching; best, indeed, that it be given before it sets in by taking advantage of the signs by means of which these patients know that they will have a headache. Fantus likes to impart effervescence to the medicine in the belief that it favors its efficiency and retention. If the whole dose is vomited up, the patient might be able to retain a quarter of it taken in a wine-glassful of seltzer water every fifteen minutes. Fantus prescribes the remedy in this form:

Gm. or Cc.

R. Sodium salicylate .....	6 0
Potassium br•mid .....	12 0
Sodium bicarbonate .....	12 0

Mix and divide into six blue powder papers.

Tartaric acid ..... 10|8

Divide into six white powder papers.

Label: Mix contents of a white and a blue paper in half a glass of water. Repeat dose hourly if required.



# THE JOURNAL

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## MEDICAL AVOCATIONS.

Over work with insufficient relaxation is perhaps the greatest mistake made by American doctors of modern time. Most medical men are willing enough to keep up with professional progress by attending clinics, reading worth-while current literature and attending medical meetings; but they are apparently oblivious of the equal necessity

of giving mind and body adequate rest and change. Many years ago Herbert Spencer, during a visit to this country, called attention to the need of Americans as a whole for the Gospel of Relaxation.

Recreation for doctors may be considered under two heads: Indoor sports and outdoor sports. Among outdoor sports perhaps the one most frequently followed by us is repairing punctured tires far from the Maddening Crowd in wet weather. Hunting and fishing are meritorious avocations, but fishing is now-a-days a crippled pursuit because of the high cost of liquid synergists. Giving barbecues to medical friends is highly recommended. Also golf.

Now, however, that the winter season is drawing on, indoor sports are of more immediate interest. Stud poker has long held a firm place in this category. But it is subject to the same handicap which applies to the art of angling. Reading good non-medical literature, especially of the romantic type, is to be commended. In this connection let me recommend the romances of that consummate master of the writer's craft, Joseph Conrad.

The royal game of chess offers the man of medicine an avocation of real merit. No other game so completely absorbs the attention, so effectively draws the mind away from the cares, worries and problem of medical practice. Moreover, chess is a mental gymnasium, a school for character and an absorbing pleasure for those so fortunate as to become interested in it. Chess is not really difficult to learn, yet offers unlimited scope for development of the analytical, strategic and precautionary faculties of the mind.

—Crenshaw.

## GASTROENTEROLOGY IN THE SOUTH.

Gastroenterology as a specialty, with the exception of roentgenology, is perhaps the latest claimant to recognition. Twenty years ago, according to the best information obtainable, there were but six men pursuing this special line of endeavor in the southern states—two in Baltimore, and one each in New Orleans, Atlanta, Memphis and Charlotte. These pioneers worthily tilled the

virgin soil, though with scant encouragement and much opposition from some quarters. A large part of this opposition came from the internists, who felt that their field was being invaded, and from some general practitioners, whose attitude was similar.

This lusty and evidently deserving young specialty, however, continued to grow apace, making itself a place in the medical cosmos, and from year to year drawing within its ranks earnest devotees, who adopted this class of work from high motives, and continued because there was a real niche awaiting their efforts.

At present gastroenterology, as a specialistic entity "has arrived." It has created for itself a prestige that can easily withstand any random animadversions, that happily are becoming more and more rare—a prestige, whose foundation becomes more firm with each passing year.

We of the South feel especially gratified that we have mustered enough strength and commanded enough respect to be taken under the wing of the Southern Medical Association. The yearly meetings of the Southern Gastroenterological Association are now held in conjunction with the Southern Medical Association, our programs are included in its bulletin and our papers are published in the Southern Medical Journal.

These tokens of recognition and appreciation both encourage and stimulate us. We ask no special favors; all we desire is the opportunity to work out our own salvation "with good will toward all and enmity toward none."

—Niles.

### **FEE-SPLITTERS.**

There is little new to be said on the subject of fee-splitting, but in an editorial just published in the *Journal* of the Medical Association of Georgia, Dr. E. C. Thrash says some of the old things in a new way. He classifies fee-splitting into three types: inmate crooks; impecunious young men who resent the fact that much work goes to older men who are their inferiors in ability, and men who do not fully comprehend the heinousness of the offence. Class 1 he considers

unreclaimable; such men, he says, would even take an oath not to split fees and then continue the practice. Men in Class 2 reform when they become more prosperous, and Class 3 is made up chiefly of men who do not analyze the ethics of fee-splitting, considering only that they have performed service and are getting their due. The appeal is made to young men that they bear a little more sacrifice and have the satisfaction of looking back on a career wholly honorable. Class 3 is asked to recognize the value of honest service and to collect a fee for it openly. The man with a conscience needs no better guide.—*Jour. A. M. A.*, Sept. 11, 1920.

### **COMMUNICATIONS.**

To the Editor:

In the *Journal* of the American Medical Association of Sept. 11 there is an article in re. "Fee-Splitting" stating that in a recent issue of the *Journal* of the Association of Georgia there is an editorial on this important subject. I am much interested and would very greatly appreciate it if you will send me a copy containing the article in question by Dr. E. C. Thrash. Thanking you in advance, I remain

Yours very truly,

Harry E. Shaver, M. D.,

Boyne City, Michigan.

Dr. Allen H. Bunec, Editor,

*Journal of Medical Association of Georgia*,  
Atlanta, Ga.

Dear Doctor Bunec:

Your efforts to get out the *Georgia Journal* on time, and in good shape, are meeting with splendid success, and we congratulate you.

It is a real pleasure to pick up your *Journal*, and find the advertisements sent you are being taken care of. Also your "news items" must be of interest to all your readers, and will give them some reason for opening its pages.

The editorial on Fee-Splitting by Dr. Thrash led us to suggest to the Editor of the *Journal American Medical Association* he might find good material in it for an editorial

in that Journal. If he does so, we hope he may give your Journal his endorsement.

Very truly yours,

E. W. MATTSON, Manager.

Cooperative Medical Advertising Bureau,  
Auspices American Medical Association.

Dr. Allen H. Bunce, Editor,

Journal of Medical Association of Georgia,  
Atlanta, Ga.

Dear Doctor:—

I notice that the eminent "discoverer," Voronoff, has landed in New York. He, according to the New York Tribune for Monday, July 19, 1920, announces "that his purpose in visiting America is to carry the operation a step farther by using the human glands instead of those of apes or other animals." He said, "that he was confident that he could graft the interstitial glands of a man to whom death had come while he was in perfect health, to the body of a living man with most beneficial results. The victim of accident or of the electric chair at Sing Sing would yield a suitable gland." He states, "that he hopes to demonstrate this wonderful new operation before representatives of the Academy of Medicine."

This fellow apparently proposes to demonstrate as a new proceeding the work that I have been doing for the last six years, of which I have operated a large number of cases. Reports of my work first appeared in the Bulletin of the Chicago Medical Society March 7, 1914. The first operation was done by myself upon myself January 16, 1914. In the New York Medical Journal for March 21, April 4, July 11, October 17, 24 and 31, and November 7, 1914, and March 27 and April 3, 1915, I reported a large series of cases with microscopic studies and studies of the effect of the sex hormone. Also in 1917 my book appeared in which I reviewed all my work and added a number of new cases, including also some experiments upon lower animals.

Can you not aid me in "spiking the invader's guns" through the editorial columns of your journal and through the public press? I have sent to Voronoff, care of the New York Tribune, the evidence that he is six years too late. It is hardly possible

that he did not already know of my work.

In addition to the foregoing reports, several reports have been made in the Journal of the American Medical Association during the past three years. The Paris press also commented extensively upon my work in May, 1914, notably *Le Gaulois* and *Le Matin*. It also appeared in the *Courier de Lyon* about the same time. Then, too, in 1917, a complete article in French, written by one of our Chicago physicians was sent to *Paris Medical* and accepted by that journal. This, however, never was published so far as I know. The letter of acceptance is available. I understand that Voronoff is on the staff of *Paris Medical*, although I have no authentic information upon that point.

Thanking you in advance for any courtesy you may extend in the matter, I am

Very fraternally,

G. FRANK LYDSTON,  
Chicago, Ill.

#### FLOYD COUNTY MEDICAL SOCIETY COOPERATING IN BATTEY MEMORIAL MOVEMENT.

On Friday evening, September 17th, Dr. Arthur C. Shamblin, president of the Floyd County Medical Society was host to the members of the Society at a banquet given at his beautiful home on upper Broadway.

A large attendance was present, as is usually the custom with the Floyd County Physicians when there is anything to eat.

Dr. Geo. B. Smith read a very interesting paper on "Acute Affections of the Middle Ear," which was discussed by Dr. Ross P. Cox.

Dr. Wm. J. Shaw read a most instructive paper on "Malaria," which was discussed by Drs. E. J. Cheney and J. P. Ballenger.

The Society went on record as unanimously endorsing the Battey Memorial Movement, which was launched last July at Dalton by the Seventh District Medical Society, and selected the following local Committee from the Floyd County Society to cooperate with the distinct committee; Drs. R. H. Wicker, R. O. Simmons and Wm. J. Shaw.

M. M. McCORD, M. D.,  
Secretary Floyd County Medical Society.



**SURGICAL ABSTRACTS.**

Edited by  
Edgar H. Greene, M.D.

SCHMITZ, HENRY, Surgery, Gynecology and Obstetrics, XXXI, 2. Observations on the Technique and Indications of Radium—Therapy in Uterine Carcinoma. (Read before the Chicago Gynecological Society, March 19, 1920).

The author states that a review of the literature shows that no uniform plan for application of the Gamma rays exists, but that every radiologist has a technique of his own. He points out that the radium emanations produce the same results as the radium salts. Some advocate several short exposures with long or short intervals while others advocate one continuous exposure. He has given all methods a careful trial for six years, keeping records of the cases.

Another unsettled question is whether the pelvic organs should be removed surgically after local healing of the cancer growth by the rays.

The technique of radium therapy must be based on the diseased conditions found in the pelvis in the uterine carcinoma. The purpose of the treatment is to destroy the cancer completely without producing serious injury to the surrounding healthy tissues and organs.

The author gives a description of the advance made on the tissues by the cancer and course the malignancy takes, and explains how, when the radium capsule is placed in the cervix, it will disperse rays evenly through the pelvic cavity and must penetrate with such an intensity at the periphery that the carcinoma cells at that distance be completely destroyed.

The amount of radium used depends upon the area to be rayed. The smallest amount permissible must be used. Overdosing leads to dangerous complications, both local and systemic.

The author has worked out, by certain experiments on the skin, a scale of dosage which is expressed in milligram element hours (mg. e. hrs.) for example: Two glass tubes, each containing 25 milligrams of radium element in the form of the insoluble

sulphate of a chemical purity better than 94% are properly covered with silver, brass and rubber filters. The metal filter absorbs the beta rays and the sagnac rays are absorbed by the rubber. If such a container is placed over healthy skin at a distance of one centimeter between the axis of the radium capsule and the skin surface, a reddening of the skin is observed within 10 to 14 days after an exposure of somewhat less than two hours. This dosage is termed an erythema skin dose and amounts to about two times 50 milligrams i. e., 100 milligram element hours (mg. e. hrs.). The longer the exposure, the deeper the burn. Should the exposure be extended to 20 hours a burn of the third degree results, the epithelium has been totally destroyed. Should the radium carrier be applied at a distance of 2 centimeters, then an erythema dose is obtained within 8 hours.

The sensibility of carcinoma tissue to the rays is held to be about one-half greater than that of normal tissue. With these principles for a foundation the author has worked out a very elaborate scale for dosage, and furnished records of cases showing the applications and results of the various treatments.

The patient is subjected to careful re-examinations 10, 30 and every 45 days for 2 years and every three months for an additional 3 years. Exact records are made each time and the findings of all surrounding organs noted.

The author gives a tabulated list of his cases, which are carefully selected and divided into five groups:

- (1) Cases which are clearly operable after a physical examination;
- (2) Cases which are doubtfully operable, "the border line cases;"
- (3) Cases in which an operation is absolutely impossible;
- (4) Cases so far advanced that all treatment is hopeless; and
- (5) Cases in which there has been a recurrence after abdominal panhysterectomy.

The author's technique is indicated in cases of group 2 and 3. It is absolutely useless in cases of group 4, the terminal cases. It is impossible of execution in cases of group

5 on account of the absence of the uterus. Cases of group 1, of course, are subjected to abdominal panhysterectomies after a preliminary radiation.

In six years time out of 208 uterine cancers treated with radium, 22 cases were assigned to group 2 and 82 cases to group 3. Thirteen of group 2 were subjected to abdominal panhysterectomy after a recession of the diseased tissues to an apparently normal state after radium treatment. Of these 5 are living and 5 have succumbed to the operation and 3 did not report.

Of group 3: 16 panhysterectomies after apparently local heading. Two are living, 10 have died and 4 did not report.

"Patients treated with radium only, and not subjected to panhysterectomy, excoehleation, or cauterization," the author says, "have a better chance all around."

Recurrences after local healing of carcinoma with radium appear within 6 to 9 months, rarely later, following the termination of the treatment. Such resurreneces are very refractory to radiations, probably due to heavy connective tissue reparative process. Failing to react to treatment, and if the growth is still confined to the uterus, the author advises surgical intervention.

Recurrences appearing in the regional lymph nodes have been treated by subjecting the patient to laparotomy and burying the radium tubes through rubber tubing in the tumor mass. No apparent benefits have been noted in such procedures. The author promises to continue the treatment, however, in well selected cases of such recurrences.

The discussion of the paper is exceedingly interesting.

#### A Case of Foreign Body in the Lung.

Russell, Lieut. W. S., Medical Corps, U. S. N. R. F.—The Military Surgeon, Washington, D. C. XLVII, 3.

**History**—Miss C., a nurse, age 29, on duty at the U. S. Naval Hospital, New York, N. Y. About eleven years ago while lying in bed with a barret or bar pin in her mouth suddenly began sneezing, the barrette being

aspirated into the lung. X-Ray examination at the time showed the pin lodged in a bronchus of the right lung near the base.

A number of attempts to remove the pin by means of the bronchoscope were unsuccessful. No discomfort has been suffered from the presence of the pin.

In May, 1918, while on duty at the hospital, she coughed and raised some blood-stained mucus. X-Ray examination showed a wide open bar pin 1-1/8 inches long and 1/4 inch wide, pointing upward, lying in a bronchus at the posterior and outer side of the base of the right lung. The patient states that the position of the pin has changed since the last plates were made. It lies nearer the base and has opened further.

There is no evidence of any pathologic change in the tissue about the pin, therefore the conclusion is reached that the expectorated blood is of some other source.

**Remarks**—Numerous cases of foreign bodies, tacks, pins, nails, coins, buttons, candy, etc., inhaled into the lungs have been recorded, particularly in children, but the writer has found no record of aspiration of a pin of this character.

Foreign bodies that pass into the lung, usually follow the right bronchus—it being more nearly in line with the trachea, than the left. Only 25% of foreign bodies pass into the bronchi, the greater number being arrested in the trachea or larynx.

Rare cases have been reported where a foreign body remained in the lung, without causing trouble, for long periods, one as long as sixty years. If a foreign body is not removed surgically it may be coughed up, or it may result in necrosis of the cartilage of the bronchus with discharge through an external wound. If a foreign body remains it may cause serious pathologic change, as ulceration or necrosis, or infection may follow. After a considerable time a fibrous capsule forms about the foreign body.

The prognosis, unless the foreign body is removed, is unfavorable. Von Brus reports a mortality of about 33%, taken from all available statistics. The deeper the body lies in the lung, the greater the mortality.

This case is remarkable in that the patient has carried the pin for over 13 years lodged



in the lung without producing any apparent change in the surrounding tissue.

The patient is still following nursing and complains of no trouble from the presence of the pin.

The July number, the first issue of the new publication of the American Medical Association, "**Archives of Surgery**," appeared recently, and we welcome its advent into the field of medical journalism. For the present the periodical will appear semi-monthly. The editorial board consists of Dean Lewis, editor, Evarts A. Graham, Hugh Cabot, Thomas Cullen, William Darbish and William J. Mayo, men who well represent the different specialties in surgery.

In the editorial announcement Dr. Mayo gives the reasons for launching another journal of surgery into an arena already filled with splendid publications of like character. The new journal is not intended to compete with these. Its pages will not be devoted to surgical subjects along the usual lines of the description of the symptoms, diagnosis and treatment of surgical conditions, with report of cases. For a long time it has been felt that American surgery was being developed unevenly, that operative technic and skill was outdistancing our real knowledge of the fundamentals and philosophy of surgery. The purpose of the Archives is to disseminate a broader conception of these matters.

Surely there is room for such a journal, and an urgent need for it. It should appeal not only to surgeons but to medical men in all lines of work who aspire to a profound understanding of their work, and who wish to keep in touch with the progress of surgery along scientific lines. The first number of the new publication furnishes abundant proof that the aims of its promoters will be realized.

—Boland.

### MEDICAL ABSTRACTS.

Edited by

M. F. Morris, Jr., M.D.

pathologic functioning of the bichloride kidney arrived at by Elwyn (Medical Record, July 10, 1920), are summed up as follows:

(1) With the insult to the kidney, the tubules are necrosed, desquamated, and fill the lumen. The kidney is swollen, the capsule is tense and constricts the vessels. There is also possibly a vaso-constriction.

(2) This causes anuria. Consequently, all excretion products in the blood are retained, and the level of the total non-protein nitrogen and of the various non-protein constituents rises.

(3) As the glomeruli or small vessels are not diseased, the mechanism in producing hypertension is not called into play, or only slightly and in the later stages.

(4) With the lessening of swelling of kidney, and the relaxation of the constricted vessels, filtration is at once resumed, and the retained excretion products are rapidly removed.

(5) Bowman's capsule has become permeable to the proteins of the blood, which appear in the urine; these also coagulate and form the ground-substance on which various cells are deposited, with the formation of casts.

(6) The blood in the urine originates in all probability from bleeding capillaries of the necrotic tubules.

**Treatment of Vincent's Angina.**—In a recent series of sixteen cases of Vincent's angina, Voss (Norsk Magazin for Laegevidenskaben, Aug., 1920) has found a specific in arsphenamin. Following the application of a 2 per cent glycerine solution of arsphenamin to the ulcerated areas, twice daily, healing occurred in from two to six days.

**Benzyl Benzoate In The Treatment of Whooping Cough.**—Macht (Bull. of Johns Hopkins Hospt., July, 1920) studied 115 cases, all of whom had a typical whoop. All other treatment was discontinued and treatment with benzyl benzoate was begun. This drug, in a 20 per cent alcoholic solution, disguised by the addition of from one to five per cent of benzaldehyde, was given in doses ranging from five to forty drops, three or more times daily. Beneficial effects were

**Kidney Function In A Case of Bichloride Poisoning.**—The conclusions in regard to the



noted in about 90 per cent of all cases. In about 50 per cent, there was marked improvement in the symptoms. The benefits resulting from the administration of this drug were palliative and not curative.

**Pupillary And Reflex Disturbances In Two Hundred And Seventy-Five Cases Of Neuro-Syphilis.**—Lowrey and Benedict (*Journal of Nervous and Mental Diseases*, Aug., 1920) found, in 70 per cent of 275 cases of neuro-syphilis, some type of abnormal pupillary reaction; in 50 per cent, there was a stiff pupil, and in 40 per cent, the Argyll-Robertson pupil was present. They found that the Argyll-Robertson pupil occurs more frequently in tabes and tabo-paresis than in paresis. In 70 per cent of these 275 cases, Lowrey and Benedict also found some abnormality of the tendon-jerks, rather more than half of these showing diminished or absent tendon-jerks. They conclude that, as these findings are our most accurate clinical signs of neuro-syphilis, a lumbar puncture should be a routine practice in the diagnosis of nervous and mental diseases.

**Trauma And Other Non-Luetic Influences In Paresis.**—After a lengthy discussion of this subject, Osnato (*Journal of Nervous and Mental Diseases*, Aug., 1920) comes to ten conclusions, two of which are worthy of our particular attention. (1) "It would appear to be indicated that any syphilitic, suffering from a trauma to the head with possible cerebral injury, should immediately be given prolonged rest and active, intensive anti-syphilitic treatment, with a view to killing as quickly as possible any spirochetes which may have gained access to the brain substance. In order to favor the production of this result, the anti-syphilitic treatment should be begun immediately after consciousness is recovered and the acute symptoms of shock due to injury have disappeared. (2) One must be prepared for a possible parietic reaction following infections and prolonged etherization in a known syphilitic."

**Observations On The Blood Chemistry In Normal And Toxaemic Pregnancy.**—These observations by Losee (*Bulletin of the Lying-in Hospital of the City of New York*, March, 1920) are valuable, in view of the fact that

they are all negative. Using the latest methods of blood chemical analysis, Losee studied a series of cases of normal pregnancy, toxæmia of pregnancy, and eclampsia. He concludes that the chemical examination of the blood in these conditions gives no information as to the nature or severity of the condition.

**Syphilitic Lesions In The Stomach.**—According to Furno (*Rivista Critica di Clinica Medica*, May 25, 1920), one should suspect the luetic origin of the following gastric conditions; exclusively nocturnal pain, accompanied by **anacidity**; when gastric ulcer symptoms go hand in hand with hypo-acidity and low digestive power; the finding of either plastic linitis or hour-glass contraction of the stomach. Furno believes that normal or increased digestive ability of the stomach will rule out the possibility of a gastric luetic condition. However, he never operates on a gastric tumor without first giving an intensive course of anti-syphilitic treatment.

**The Therapy of Hyperthyroidism.**—Calling attention to the fact that hypersecretion of the thyroid gland is practically always toxæmic in origin, M. F. Morris, Jr. (*Medical Record*, Sept. 11, 1920) states that the first thought in the treatment of this condition should be the eradication of the cause, whether it be diseased tonsils, gall-bladder, genito-urinary tract, nasal sinuses, teeth, gums, or whatnot. Then certain dietetic, hygienic, and medicinal measures are applied,—which are preferably accompanied by X-ray treatment given by a skilled radiologist. Morris is enthusiastic over the results which he and others are getting from such a plan of treatment, and states that he believes that the chief role of surgery, in the future treatment of hyperthyroidism, will be only in the removing of some of the causes of the hypersecretion.

**The Blood-Sugar Tolerance Test As An Aid In The Diagnosis Of Gastro-Intestinal Cancer.**—According to Friedenwald and Grove, (*American Journal of the Medical Sciences*, Sept., 1920), there is present in carcinoma of the gastro-intestinal tract usually a rather characteristic curve of sugar tolerance which differs somewhat from that observed in carcinoma of other organs of

the body. The curve of this affection usually presents a high sugar content even in the fasting state, followed by an initial rise up to 0.24 per cent or higher within 45 minutes after the ingestion of 100 grams of dextrose, remaining at this level for at least two hours, and at no time during this period falling below 0.20 per cent. This sugar tolerance test is rather distinctive and may aid in making a differential diagnosis between carcinoma and other diseases of the gastro-intestinal tract. The value of this test as a means of early diagnosis has not yet been determined; and the test is not specific of carcinoma.

**Splenectomy.**—The medical aspect of splenectomy is given, in an editorial in the *Journal of the Missouri State Medical Association*, written by an Atlanta physician, as follows:

Since the surgical removal of the spleen first occurred several decades ago, this operation has become more and more popular, until today it is not a rarity in any large clinic. In fact, some surgical enthusiasts desire to remove every enlarged spleen with which they come in contact, which observation reminds us that, before removing any viscus, we should seriously consider the functions of that organ, the indications for, and the results of, removal.

The functions of the spleen are probably not fully known. However, one of the latest works on physiology gives to the spleen the following functions: (1) the formation of white blood cells; (2) in embryonal life, the formation of red blood cells, and (3) disintegration of red corpuscles. In addition, the spleen aids somewhat in the formation of uric acid; and it seems to act as a vascular reservoir to the digestive organs and to the portal circulation.

The general indications for splenectomy are the following splenic conditions: wounds, rupture and an abscess which cannot be drained; movable, or wandering spleen; also in cases of malarial splenomegaly; primary tuberculous splenomegaly; syphilitic splenomegaly, when this condition begins to resemble splenic anemia; Gaucher's splenomegaly; splenic anemia and splenic tumors, excepting sarcoma. This operation affords

some relief, also, in some cases of pernicious anemia.

Following the removal of a diseased spleen, because compensating organs are already at work when the operation takes place, usually no symptoms result.

However, when a normal spleen is removed, following injury, etc., there occurs a certain train of symptoms, such as pain in the head, arms, abdomen and legs; fainting, drowsiness, loss of weight; polyuria, thirst and an increase in the temperature and pulse rate. There is, also, a diminution in the amount of hemoglobin and in the number of red corpuscles. Along with a leucocytosis, there, also, occur a greater cholesterol content of the blood and a greater resistance to hemolytic agents.

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### BOOK REVIEWS.

**Diagnosis and Treatment of Brain Injuries**, By William Sharpe, M. D., Professor of Neurological Surgery, New York Polyclinic Medical School and Hospital. J. B. Lippincott Company, Publishers, Philadelphia.

In this work Dr. Sharpe has presented a most timely and important subject, and he has done it well. The book not only will interest the neuro-surgeon, but the general surgeon and the obstetrician and the pediatricist as well. Its greatest value will be to the man doing emergency traumatic surgery.

Two features make the work particularly noteworthy, first, the presentation of nearly 200 actual case-reports, given in commendable detail, and second, the presentation of such a large percentage of autopsy reports of the cases which died. Dr. Sharpe states that he does not operate upon any case of brain injury (except those in charge of the coronor) unless written permission is obtained to perform an autopsy in the event of death. With a clinic conducted in the heart of metropolitan New York the author has had unusual opportunities to study cases of this kind, and certainly he has made the most of such a rich supply of material.

The book treats not only of the common brain injuries in adults, but nearly one-third of the volume is devoted to brain injuries in



newborn babies and children, a class of work of which the author, from his vast experience and close observation, also is well qualified to speak. Here again the case reports are splendid, and Dr. Sharpe is to be congratulated upon the care and candor with which they were prepared. We have never seen any better.

The illustrations are good, though not so numerous as in many books of similar size. Striking is the moving picture series giving 73 views of a decompression operation. For mechanical construction, as well as for subject matter, Lippincott's books always are among the best.

—Boland.

**Exophthalmic Goiter And Its Non-Surgical Treatment.**—By Israel Bram, M.D., Instructor in Clinical Medicine, Jefferson Medical College, Philadelphia, Pa., Physician on Visiting Staff of Philadelphia General Hospital; Member of Society for Study of Internal Secretions, etc. St. Louis: C. V. Mosby Co., 1920.

For some time, medical men generally have been disappointed with the results of surgical treatment of exophthalmic goiter; and, lately, several men have made important contributions on the different non-surgical methods of treatment. This monograph, by Dr. Bram, is an excellent review of the literature on the subject, with a complete discussion of all phases of exophthalmic goiter, excepting, of course, surgical technique. Dr. Bram also gives his own opinions and methods. This book is an interesting and valuable addition to medical literature.

—Morris.

#### CLINICS AND CASE REPORTS.

Edited by  
C. E. Waits, M.D.

Sufficient space has been assigned to this department for the publication in each issue of the Journal, of several case reports and clinics. We shall be glad to have reports of interesting cases and clinics from every section of the state and urge the full co-operation of the profession in making this an attractive part of the Journal.

Mail all data for this department to Dr. Charles E. Waits, 714 Hurt Building, Atlanta, Ga.

#### Carcinoma of Body of Uterus at the Age of Twenty-One.

Carcinoma of the uterus does not often occur before the age of thirty years and in

only a very small per cent of cases does it attack the body, usually occurring as result of a neglected laceration of the cervix.

**History.**—Mrs. A., age twenty-one, admitted to the Georgia Baptist Hospital May 26, 1920, by ambulance from out of the city.

**Chief Complaint.**—Uterine hemorrhages, which had been continuous for several weeks, uterine pains or cramps, anemia, general weakness and a foul odor to vaginal discharge.

**Family History.**—Father, mother, one sister and four brothers all living and well.

**Past History.**—Married three years, one child two years old. At time of its birth a portion of the placentas was retained and had to be curetted away on the 8th day by the attending physician. Periods returned and were twenty-eight day type, lasting eight or nine days. In August, 1919, the flow began to be profuse (flooding) at each menstrual period and her general health to decline. About May 1, 1920, she began to have pains in lower abdomen and also began to flood alarmingly, which continued, until she was admitted to hospital May 26, 1920.

**Physical Examination.**—Patient emaciated and very anemic. Hemoglobin 30%. Red blood cells 2,640,000. Temperature 101 to 102. Pulse 126. Chest negative. Abdomen, boat shaped, mass size of a man's fist above pubes. Vaginal examination showed uterus as large as if four months pregnant, cervix patulous with a mass of tissue protruding from the cervix into the vagina, a profuse vaginal discharge which was very offensive. With a speculum this mass of tissue was seen to be necrotic.

**Provisional Diagnosis.**—Uterine Polyp of large size undergoing necrosis. May 27, 1920, under a gas-oxygen anaesthesia this necrotic mass of tissue was cut away up into the cervical canal, it was noted that it did not bleed at the time. 50 mg. of Radium was inserted into the uterus for twenty-four hours, following which there were pieces of sloughing tissue daily, but no more hemorrhage.

May 29, 1920, 500 c.c. of citrated blood was transfused, the next day the hemoglobin was 40% and three days later 55%.

June 4th, 50 mg. of Radium was again inserted into the uterus for twenty-four hours,



and June 7th, 500 c.c. of citrated blood was again transfused. June 8th, her hemoglobin was 65% and ten days later it was 80%.

June 22, a complete hysterectomy was done leaving one ovary. There was no shock. The uterus was cut open showing that all of the intra-uterine growth had a sloughed away as a result of the radium, leaving only the base of the growth which penetrated the wall of the uterue  $1\frac{1}{2}$  cm.

**Pathological Report.**—On the tissue removed May 27th, was "Necrotic tissue." Report on the uterus was, "Intra-uterine polyp with early adeno-carcinoma developing at its base."

The patient improved rapidly and left the hospital July 15th, in good condition and has gained weight and is rapidly regaining her former vigor.

—T. C. Davison, M.D.

Associate Professor of Surgery, Emory University Medical College, Visiting Surgeon, Georgia Baptist Hospital, and associate Surgeon to Grady Hospital, Atlanta.

### Syphilis of the Lungs—Report of Case.

Pulmonary lesions as the result of syphilis are undoubtedly much more frequent than clinicians have supposed. But still lues of the lung is not an every-day finding in a clinic devoted to pulmonary diseases. In acquired syphilis, the chief lung lesions are gummata, broncho-pneumonia, fibroid induration or chronic interstitial pneumonia, a progressive destructive disease—the so-called syphilitic phthisis, and a form in which the lesions consist in an area of consolidation and catarrh, which may occur around the root of the lung or at one apex. The following case seems to be of interest:

Mrs. X, age 29, a housewife, is the mother of three children who are fairly healthy. She has had no miscarriages and gives a family history and a past history of no significance. She has "been going down hill" ever since her first baby was born, 11 years ago. She coughs only moderately, and expectorates a moderate amount of whitish or yellowish sputum, which is frequently blood-streaked. She has considerable pain in the epigastrium, about 30 minutes after meals, and the pain is relieved by the eating of

food or the taking of cooking soda. She has lost much weight and strength. Her appetite is excellent and her sleeping is fairly normal. She takes laxatives frequently.

**Physical Examination:** Positive findings—weight 92 pounds. Pulse 100. Temperature 101. Several carious teeth. Posterior cervical and epitrochlear glands palpable. There is a point of some tenderness in the pyloric region. There is an area of about the size of a 25-cent piece, on the vertebral aspect of the right upper lobe, where numerous crepitant rales and prolonged expiration were present, with some increase in dullness and vocal fremitus. There was also a cervical tear of second degree on the right side.

**Laboratory Findings:** Urine and blood smear negative. Frequent examinations of the sputum failed to demonstrate the presence of the tubercle bacillus. Gastric contents showed a total acidity of 85 and a free HCl content of 60. No X-Ray examination. Wassermann 4 plus.

This case was considered as one of pulmonary tuberculosis, until the Wassermann report was received. The patient was put upon anti-luetic treatment. Three months later, she was feeling excellent and doing her house work, and had gained 22 pounds in weight. The lung lesion cleared up so that only the slightest prolongation of the expiratory note remained. The temperature and pulse were normal. The outcome of the case made a diagnosis of syphilis of the lung justifiable.

—M. F. Morris, Jr., M.D., Atlanta.

### Report of a Case of Epilepsy Apparently Cured Following Operative Correction of Internal Strabismus.

Young woman aged 14 who has had epilepsy for the past three years was admitted to the Grady Hospital in March 5th, 1920, for treatment.

**Past History.**—Negative except for the fact that she has never taken a high stand in school on account of defective vision. Three years ago she began to have "spells" which have increased both in duration and frequency until now she has as many as ten

a day which last from a few minutes until an hour. The attacks of this patient were typical grand mal seizures with aura, lividity, complete unconsciousness, frothing at mouth, biting of tongue and severe convulsions. This case was first treated by the medical service then neurological and then surgical. On the latter service, on account of the intense and diffused abdominal pain and distension an exploratory laparotomy was done and the appendix removed as a matter of routine. A small ovarian cyst on each ovary was punctured. No other pathology was found. Following this operation she went for eleven days without an epileptic seizure. Was transferred to Eye, Ear, Nose, and Throat service for the removal of tonsils. At the time of this operation we noticed that she had an internal strabismus of the right eye of about 65 degrees and ten days later a complete tenotomy was done on internal rectus and a Reese Resection of external rectus under cocain anesthesia. The cosmetic effect of this operation was most satisfactory. Patient continued to have convulsions and on account of the chronicity of the case and the need of bed space in the hospital patient was discharged on the 99th day. Two days afterwards she was seen in the office and refracted under atropine. Retinoscopy showed in right eye a plus four cylinder, axis 75 and in the left eye a plus four cylinder, axis 120. This correction she accepted and same was prescribed for constant use. Since atropine was used which paralyzed the accommodation and the wearing of glasses which were soon afterwards given, there has been no return of these epileptic seizures and three months has now elapsed since that time. This case demonstrates most conclusively to my mind that these "spells" were due to an imperfect binocular balance which with operation correcting strabismus and with proper glasses has been relieved. (Her previous correction was a plus one sphere in each eye). Also the fact that chronic epilepsy does not necessarily indicate any organic changes in the nerve centers. Patient at present is on an unrestricted diet and the only treatment that is being prescribed is the constant use of the glasses. Since glasses have been given the Bromides and other

sedatives that were used have been discontinued. Another interesting feature of this case is the fact that if patient leaves off glasses for any length of time she experiences an aura similar to that she previously had prior to an epileptic seizure which is immediately relieved by the putting on of her glasses. This young woman was presented in person to a recent meeting of the Fulton County Medical Society since which time I have received numerous inquiries concerning her case.

—Murdock Eguen, M.D., Atlanta.

### MEETING OF THE RAILWAY SURGEONS ASSOCIATION OF GEORGIA.

Atlanta, Ga.,  
Piedmont Hotel,  
Aug. 18, 1920.

Meeting of Railway Surgeons Association of Georgia was called to order by President A. R. Rozar, M. D., at 10 o'clock.

Invocation was offered by Rev. C. B. Wilmer.

Hon. Harvey Hatcher, mayor pro tem, delivered address of welcome in behalf of the city of Atlanta.

Dr. Thos. H. Hancock delivered the address of welcome in behalf of the medical profession of Atlanta.

Dr. Thos. J. McArthur, of Cordele, responded to the address of welcome.

It was moved and carried that the privileges of the floor be extended to visiting physicians.

President Dr. A. R. Rozar made an address that was much needed and beneficial to all.

Dr. Jos. M. Burke, chief surgeon of S. A. L. Railway, Petersburg, Va.; Dr. H. Aulick Burke, assistant chief surgeon of S. A. L. Railway, Petersburg, Va., and Dr. D. Z. Dunott, chief surgeon of Western Maryland Railway Company of Baltimore, made able addresses before the association.

Dr. J. G. Dean, of Dawson, Ga., read a paper on "Knocks and More Knocks," which was discussed by the following members: Dr. H. W. Terrell, LaGrange, Ga., and Drs. James T. Ross, Macon, Ga., M. L.

Currie, Vidalia, Ga., H. A. Burke, Petersburg, Va., T. E. Oertel, Augusta, Ga., D. B. Ware, Fitzgerald, Ga., T. J. McArthur, Cordele, Ga., D. Z. Dunott, Baltimore, Md., Gordon Chason, Bainbridge, Ga.

The committee on foreign transportation, Dr. T. J. McArthur, chairman, and Dr. Cleveland Thompson and Dr. Thos. H. Hancock reported as follows:

Whereas, during the period of 1919 and up to March, 1920, trip transportation was granted local surgeons over so-called foreign lines, in order that they might attend medical and surgical meetings and clinics; and,

Whereas, this privilege tended to increase their professional skill and efficiency in railway science.

Therefore be it resolved by the Railway Surgeons Association of Georgia, in convention assembled, that the chief surgeons of the various roads be requested to have this privilege restored to them. Resolved further, that the secretary of this association be instructed to send a copy of these resolutions to the chief surgeons of the various roads operated in Georgia.

T. J. McARTHUR, M. D.,  
Chairman;  
CLEVELAND THOMPSON, M. D.,  
THOS. H. HANCOCK, M. D.,  
Committee.

#### Afternoon Session—2:30 P. M.

Association called to order by President, Dr. A. R. Rozar.

Dr. J. W. Palmer made his report as follows:

Report of the Secretary and Treasurer of the Georgia Railway Surgeons Association.

I herewith submit my financial report for year ending Aug. 18, 1920:

Cash received during and since our organization for membership of 114 members, \$342.00.

#### DISBURSEMENTS.

1920—

Feb. 4—To cash, E. A. Blount for telegram, V. No. 1.....	\$ 1.00
Feb. 10—To cash, D. G. Riddle, clerical work, V. No. 2.....	4 00
Mar. 16—To cash, D. G. Riddle, typewriting, V. No. 3.....	5 00
Apr. 6—To cash, H. B. Folsome, printing circulars, V. No. 4.....	2 75
Apr. 24—To cash, D. G. Riddle, typewriting, V. No. 5.....	5 00

May 4—To cash, Montgomery County Bank Exchange, V. No. 6.....	10.00
May 7—To cash, Hutchens-Parker Placards, V. No. 7.....	3.00
July 16—To cash, C. D. Peterson, postage, V. No. 8.....	22.76
Feb. 10—To cash, C. D. Peterson, postage, V. No. 9.....	6.54
July 16—To cash, Miss Minnie Abbott, typewriting, V. No. 10.....	4.00
Aug. 13—To cash, E. A. Blount, telegram, V. No. 12.....	1.20
Aug. 13—To cash, H. B. Folsom, printing, V. No. 13.....	26.00
Aug. 10—To cash, St. Louis Button Co., badges, V. No. 14.....	42.95
Aug. 18—To cash, secretary's salary.....	100.00
Aug. 18—To cash, balance on hand, Montgomery County Bank.....	92.80
Total .....	\$342.00

Respectfully submitted,

J. W. PALMER, M. D.,  
Sec. and Treas.

#### Report of Auditing Committee.

We, the undersigned committee appointed to audit the financial report of Secretary and Treasurer, find the same to be correct as reported by him this Aug. 18, 1920.

M. L. CURRIE, M. D.,  
Chairman.

W. R. BRIGHAM, M. D.

Dr. T. J. McArthur, of Cordele, Ga., read a very interesting paper, entitled, "Gangrene, With Report of Two Cases," and was discussed by Dr. D. Z. Dunott, of Baltimore; Dr. J. G. Dean, of Dawson; Dr. Gordon Chason, of Bainbridge, Ga., and Dr. McArthur in closing.

Dr. T. F. Abercrombie, of Atlanta, read a paper of much interest which was prepared by Dr. Jos. P. Bowdoin, of Adairsville, Ga. The title of the paper was "Syphilis and Its Relation to Railroad Operation." This paper was discussed by the following surgeons: W. R. Brigham, Dublin, Ga.; A. F. White, Flovilla, Ga.; James T. Ross, Macon, Ga.; W. G. England, Cedartown, Ga.; Wm. S. Goldsmith, Atlanta, Ga.; D. Z. Dunott, Baltimore, Md., and Dr. Abercrombie in closing.

Dr. R. M. Harbin, Rome, Ga., read a very able and important paper entitled, "Trephining in Head Injuries." It was discussed by Dr. H. A. Burke, Petersburg, Va., and Dr. Harbin in closing.

Dr. Wm. S. Goldsmith, of Atlanta, introduced a resolution which developed into a very heated discussion. Dr. J. W. Pal-



mer, of Ailey, rose to point of order stating that it was a resolution or amendment to Article 3, Sec. 1, of the Constitution which reads, "Members of this organization shall be limited to the railway surgeons of Georgia who are members of the Medical Association of Georgia," and that it could not be acted upon now, but would have to lay on table until next meeting. The chairman ruled that it was an amendment to the Constitution. Dr. J. R. Garner, of Atlanta, moved an amendment to resolution tabling until next meeting. The resolution is as follows:

Whereas, it has come to the attention of this association that one or more railway companies in this state employ local surgeons on the basis of an annual pass and trip transportation for dependent members of their families, and that such transportation is given in lieu of fees for services rendered personal injury cases; and,

Whereas, such practices on the part of the railway companies and the surgeons thus employed are to be condemned, as such contracts tend to lower the morale of the profession and are particularly pernicious in its effect upon the professional reputation of such surgeons in their various localities and subjects them to embarrassment and criticism in their courts of law;

Therefore, be it resolved, that this Association takes the high stand that the professional reputability of all physicians so employed in good standing in their communities is seriously jeopardized by such a penurious and short-sighted policy, and

Be it further resolved, that on and after January 1st, 1920, no physician employed on such a basis, or any other basis, not in accord with the average fee schedule in vogue by other railway systems of the state, shall be eligible for membership in the Railway Surgeons Associations of Georgia and that those surgeons now so employed and giving their services without financial remuneration, be dropped from membership in this Association on January 1st, 1921.

The following amendment by Dr. J. R. Garner, Atlanta, Ga., seconded by Dr. J. W.

Palmer, Ailey, Ga., was offered and carried:

Be it further resolved, that at the next regular meeting of this Association a vote will be taken on changing the Constitution and By-Laws so that no railroad surgeon who serves without compensation equal to the present fee bill or for pass only, will not be eligible for membership and any member thereafter so serving shall be dropped from membership in this Association.

Be it further resolved, that a copy of the resolutions be at once forwarded to the chief surgeon of every railroad operating within the State of Georgia.

Dr. J. W. Palmer moved that Dr. D. Z. Dunott, of Baltimore, Md., and Dr. H. Aulick Burke, of Petersburg, Va., become honorary members. which was seconded and carried.

Dr. J. W. Palmer moved that the thanks of this Association be extended to the hotel, the arrangement committee, the mayor of Atlanta, and especially Drs. D. Z. Dunott and H. A. and Jos. M. Burke for their presence and their able addresses before this body.

Dr. J. G. Dean offered a resolution which was adopted to amend the Constitution at our next regular meeting creating a board of censors, consisting of six members to be elected for 1, 2, 3, 4, 5 and 6 years, respectively.

Dr. A. G. Fort moved and it was carried that a nominating committee be appointed.

The nominating committee consisted of Dr. A. G. Fort, Dr. Gordon Chason, Dr. T. Oertel, Dr. S. H. Smith and Dr. J. R. Garner.

The committee nominated the following officers, who were unanimously elected by this Association:

Dr. Frank Eskridge, president, Atlanta, Ga.

Dr. James T. Ross, first vice-president, Macon, Ga.

Dr. R. M. Harbin, second vice-president, Rome, Ga.

Dr. Henry C. Wheelchel, third vice-president, Douglas, Ga.

This, our second annual meeting, was a very successful one. There were 82 members registered during the day.

Indian Springs was selected as our next meeting place. No further business, the meeting adjourned.

J. W. PALMER, M. D.,  
Sec. and Treas.

---

### NEWS ITEMS.

---

Dr. Alex. R. Craig, Secretary of the American Medical Association, was operated on for cholelithiasis on August the 4th. The operation was successful; the gall-bladder was removed. He recuperated at his old home in Maryland. His many friends throughout the entire country are congratulating him on his speedy and complete recovery.

---

Dr. Rufus T. Dorsey, Atlanta, announces the removal of his offices from the Hurt Building to 20 E. Linden Avenue.

---

After spending nineteen months in the Brooklyn Eye and Ear Hospital, Dr. C. E. Ware announces the opening of his offices at 503-4 The Grand, Atlanta. His practice will be limited to diseases of the Eye, Ear, Nose and Throat.

---

Dr. J. E. Sommerfield, Atlanta, has returned to his practice after an extended boat trip to New York and other points of interest in the East.

---

The Haralson County Medical Society has been reorganized with the following officers: President, Dr. W. H. Malone, Tallapoosa; Vice-President, Dr. W. F. Reid, Buchanan; Sec.-Treas., Dr. C. W. Downey, Tallapoosa; Censors, Drs. L. J. Johns, Tallapoosa, E. S. Sanford, Buchanan, B. F. Eaves, Draketown; Legislative Committee, Drs. L. J. Johns, Tallapoosa, M. H. Stephens, Bremen, E. S. Sanford, Buchanan.

---

Dr. John S. Derr, Atlanta, announce the removal of his offices from the Trust Company of Georgia Building to Suite 008 Hurt Building. Practice limited to X-Ray diagnosis and treatment.

At the semi-annual meeting of the State Board of Health the title of the Secretary was changed to Commissioner of Health. Dr. J. P. Bowdoin was elected Deputy Commissioner of Health.

---

Dr. A. M. Dimmock, who was formerly associated with Dr. Arch Elkin, has opened offices at 707-9 Hurt Building. He is doing a general practice.

---

Dr. L. C. Roughlin, Atlanta, has gone to the Manhattan Eye, Ear, Nose and Throat Hospital where he expects to spend a year studying this special line of work.

---

On Saturday afternoon, September 25th, Dr. E. C. Thrash entertained the members of the Fulton County Medical Society with an old-fashioned barbecue at his home, Boulder Crest, Atlanta. A beautiful solid silver pitcher was presented to Dr. Thrash by the members of the Society. On the pitcher was engraved: "To Dr. E. C. Thrash, Superlative Host, Inimitable Wit, Peerless Physician and Friend, from the Members of the Fulton County Medical Society." The presentation speech was made by Dr. Arch Elkin.

---

Dr. Gordon T. Crozier has been elected commissioner of health of Lowndes County, Georgia, to succeed Dr. J. D. Applewhite, resigned.

---

Dr. H. D. Allen, Jr., has been elected commissioner of health of Baldwin County, Milledgeville, Georgia.

---

The School of Public Health and Hygiene of the Medical Department of the University of Georgia opened for its first session September 15th.

---

### BIRTHS.

Dr. and Mrs. O. O. Fanning, Atlanta, announce the birth of a son, Odom Olin, Jr., September 8, 1920.

Dr. and Mrs. Grady E. Clay, Atlanta, announce the birth of a daughter, Eleanor Solomon, September 5, 1920.

**DEATHS.**

Dr. H. C. Robles, Commissioner of Health of Dougherty County, age 31, died at the Phoebe Putnam Memorial Hospital, Albany, Ga., September 14th from injuries received when he slipped in making a dive into Kich-afoonce Creek and landed on his head in shallow water.

Dr. R. H. Drewry of Brooks, aged 67, died June 25th.

Dr. T. J. Charlton of Savannah, one of the most widely known medical men of the past generation, aged 56, died July 25th.

**Meeting Ninth District Medical Society.**

The Ninth District Medical Society met in Lawrenceville on September 15th. An interesting and instructive program was carried out as follows:

Invocation: Rev. Louis Henderson, Lawrenceville.

The Significance of Hemoptysis, Dr. Edson W. Glidden, Alto.

Chronic Interstitial Nephritis, Dr. J. H. Campbell, Jefferson.

Medical Organization in Georgia, Dr. Allen H. Bunce, Atlanta.

Prevention of Cancer, Dr. E. G. Jones, Atlanta.

Infant Feeding, Dr. H. L. Rudolph, Gainesville.

The Doctor and the Public, Dr. L. C. Allen, Hoschton.

The papers of Drs. Jones, Rudolph and Allen were rendered at the public session from 2 to 3 P. M.

The officers of this Society are:

President, Dr. D. C. Kelley, Lawrenceville; Vice-President, Dr. M. B. Allen, Hoschton; Secretary-Treas., Dr. A. D. White, Gainesville.

**Meeting Eleventh District Medical Society.**

The Eleventh District Medical Society will hold its regular Fall Meeting, Tuesday, November 9th, 1920, at Waycross, Ga. The

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The officers of the Eleventh District Society are:

President, Dr. R. C. Woodard, Adel; Vice-President, Dr. A. Griffin, Valdosta; Secretary-Treas., Dr. J. W. Simmons, Brunswick.

#### PARAGRAPHS OF POLY DIPESIA.

(Not censored—Ed.)

Lest the bearings of our cerebation  
run hot.

A doctor was called in to see the daughter of an old colored woman, when the following conversation took place:

"Aunt Emma what seems to be the trouble with your daughter?"

"I dunno doctor what is de matter wid dat gal. I done work on her an work on her, an look laek de more I work de wuss she gits. I sont to town atter Dr. Pinkston an he come out here an look at her an he say she got gastritis, and I lowed dats whuts de matter wid er my self, ease shes been up

**All Aboard for Louisville**

MEETING

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attention.

yonder in Atlanta cookin on one er dem gas stoves."

A colored woman had been in the throes of labor for many hours under the direction of a mid-wife. A doctor was called in, he got busy and soon the woman was delivered of twins. Each baby was wrapped in a cloth and handed to the father, who held one upon each knee while the doctor sat upon the side of the bed dragging the fundus of the uterus for whatever else might remain. The doctor took a survey of the room and found piekaninnies upon the trundle bed, on pallets and wallowing in ashes on the hearth stone. Wondering how the father would make a living for all these children, he said to him "John, how many does this make you now?" meaning the grand total. John anxiously watching the doctor's efforts replied, "dey aint but two yit doctor."

A colored deacon went unannounced into the study of his pastor and found upon the latter's knee and enfolded in his arms one of the younger sisters. The deacon began to upbraid him and the following conversation ensued:

Pastor: "Whut you makin such a big miration bout, when I ain't doin nothin but jes tendin to my fold. Ain't I de pastor ob dis flock, and ain't I as de pastor got de right to take de lambs in my lap and fold um in my arms?"

Deacon: "It sho do look laek you got dat right."

Pastor: "Well den whut you want er come buttin in here fer, skeerin de lambs away fum de fold?"

Deacon: "Brer Moderator you ean jes naeherly out talk me. I ain't got no ehance arguin wid you. I ain't much for talking but I gwine off and study bout dis and den I gwinter come baek an see you again."

After conferring with the board of deacons the chairman returned with the following report:

Deacon: "Brer Moderator, we done talk dis thing over an we is decided its jes laek you say, dat you is de pastor of dis flock, an you as de pastor is got de right to hold de lambs in your lap and fold dem in yo arms."

Pastor: "Yes, dat is jes whut I tol you to begin wid. Now whut you want to be wastin all my good time dat I orter be usin in earin fer my flock? Now ya'll des go on way from here and tend to yo own business and let mine alone."

Deacon: "Jes a minute now Brer Moderator, while we is decided you is de pastor ob dis flock, and dat you as de pastor is got de right to hold de lambs on your lap an fold dem in yo arms, but Brer Moderator, we is also funder decided dat while you as de pastor do do dis, dem lambs dat you hold must be de ram lambs."

J. D. CHASON, M. D. GORDON CHASON, M. D.

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# THE JOURNAL

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VOLUME X

ATLANTA, GA., NOVEMBER, 1920

No. 6

### ORIGINAL ARTICLES

#### ROENTGEN RAY STUDY OF THE ABDOMINAL ORGANS FOLLOWING OXYGEN INFLATION OF THE PERITONEAL CAVITY\*

George M. Niles, M. D., Atlanta, Ga.

That the presence of air or gas in the peritoneal cavity intensifies and clarifies the shadows of the soft parts, when subjected to the x-ray, has been known for several years. This idea was first put forward by Kelling in 1902, who demonstrated it on two persons—one a case of ascites, the other a cancer of the stomach.

Nothing more was heard or done till 1910 and 1911, when Jacobaeus of Stockholm experimented on over twenty cadavers, in which a trocar was pushed into the peritoneal cavity of each without injury to the intestines. He also in seventeen living cases graphically depicted such conditions as metastatic nodule in the liver, cancer of the stomach, and general malignant involvement of the colon. In 1912 he followed up this idea and showed that the following viscera and areas may be rendered, either fully or comparatively, visible by means of oxygen inflation of the abdomen: the liver, spleen, and gall bladder; also coils of the large and small intestines with barium. Not much seemed to have come of this experimental work until November, 1918, Goetze reported some remarkable roentgenograms

of nearly all of the abdominal organs; while in February, 1919, A. Schmidt still further elaborated this voyage into a new roentgen field. Since then many investigators in the United States have been industriously delving along the lines of this method; perhaps the most noteworthy being W. H. Stewart, of New York.

The technique required is not difficult, but it should always be borne in mind that where the peritoneal cavity is being invaded, careful precautions should be taken. The intestinal tract having been cleared and the urinary bladder emptied, the patient should be put on his back, and a point on the anterior abdominal wall selected about an inch to the right or left and two inches below the umbilicus. Should adhesions be suspected, or any abdominal scar be in evidence, that area should be avoided. The skin being well scrubbed, and sterilized with tincture of iodine, it is then locally anesthetized with novocain or ethyl chloride spray. Then an ordinary lumbar puncture needle or small trocar and cannula is pushed obliquely downward until it reaches the fascia. The needle should then be gently propelled through the fascia muscle and peritoneum till it enters the abdominal cavity. The plug is withdrawn and the needle connected with a small rubber tube, the other end of which connects a rubber bag or reservoir, which in turn is connected with an ordinary oxygen tank. The oxygen should then be allowed to flow until the bag is moderately full, and an assistant should encourage the flow of the gas into the cavity by pressing the bag between his two hands. Should the needle have entered the cavity, the flow is comparatively easy; but if not, there is marked resistance, and the operator should see to it that the needle has really pierced

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



Fig. 1. A shows the liver. B shows the gall-bladder very plainly.



Fig. 2. This shows an irregular mass in left upper quadrant, probably malignant. The liver is also shown.

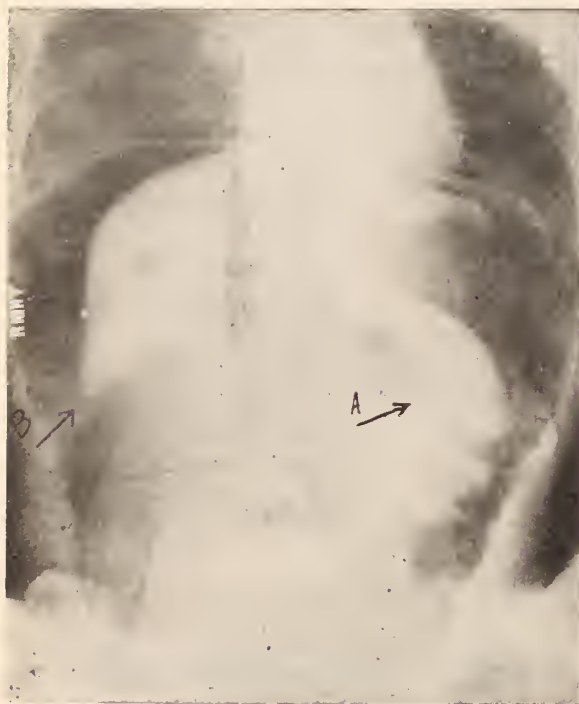


Fig. 3. A shows the spleen with its pedicle. B shows the liver.



Fig. 4. This plate shows generally disseminated adhesions of the intestines.



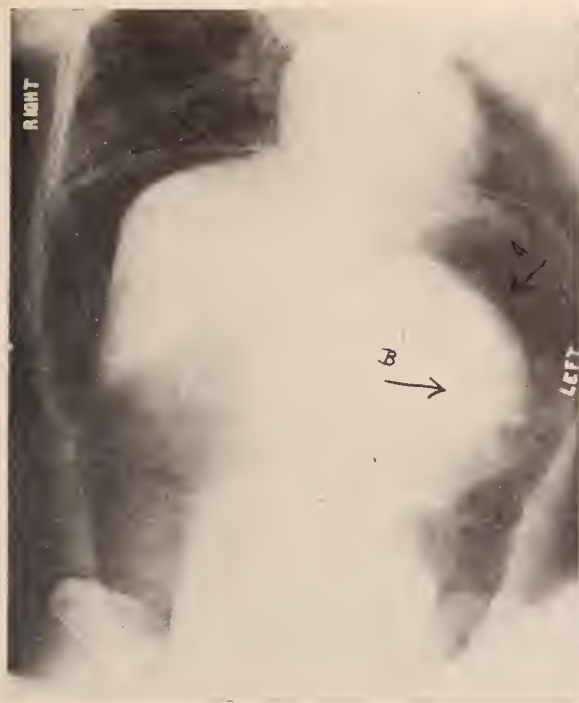


Fig. 5. B shows the spleen; the liver is also plainly shown.



Fig. 6. This portrays a colon injection showing masses of adhesions.



Fig. 7. A shows the spleen quite plainly. In the right upper quadrant the liver is shown.

the peritoneum. As the bag becomes collapsed by moderate pressure, more oxygen may be allowed to enter, and this may be kept up till the abdomen either assumes a slightly dome shape, or the patient complains of pains in his shoulders. The needle should be then withdrawn and the orifice sealed with adhesive plaster. There is generally but little inconvenience felt while the subject is in a recumbent posture, but if he attempts to rise he will suffer either from dyspnoea or acute pains in his shoulders, this being produced by upward pressure on the diaphragm.

Plates may be taken at once, though it is well to allow an hour or more to elapse, as this permits the gas to more thoroughly permeate the interstices of the abdominal cavity.

The oxygen is gradually absorbed by the tissues, generally disappearing in 24 to 48 hours.

Roentgenograms and fluoroscopic observations may be made in the prone, supine, or

lateral positions, and sometimes with the patient standing, though the last named is not always practical on account of dyspnoea and pain.

In attempting to delineate any organ, it should be remembered that that organ must be placed in the highest plane possible, so that it may be surrounded by the gas, and that the intestines be allowed to drop away, thus avoiding conflicting shadows.

Some possible objections to this method lie in danger of infection or puncturing a gut. Neither have been encountered in 37 cases reported by Dr. Stewart, and 16 by the writer. It might be said parenthetically that in an experiment upon a live rabbit, when a needle was passed through the abdominal wall into the peritoneal cavity, the intestines would always recede before the sharp point, and the moment the rabbit died puncture would occur.

While the 16 cases inflated and roentgenographed in my office have suffered no untoward results, several of them found some difficulty in walking to a street car or other vehicle, even after three hours' rest. Hereafter, I shall not advise this procedure unless it is practicable for the patient to remain in the hospital, and in the recumbent position for 15 to 48 hours, by which time the gas will have been absorbed.

This method opens up a new field in roentgen diagnosis, a field worthy of painstaking cultivation and discriminating study.

In conclusion, I wish to make grateful acknowledgments to Dr. Chas. E. Waits, who in each case introduced the trocar with skill and precision.

#### ORCHITIS FROM MUMPS.

It is asserted by *Edgar G. Ballenger and Omar F. Elder, Atlanta, Ga., (Journal A. M. A., Nov. 6, 1920)*, that the present method of treating orchitis caused by mumps is inadequate. This is shown by the large number of atrophied testis observed. The rational plan of procedure, which they have adopted, is to incise the tunica albuginea and relieve the pressure, and at the same time allow the escape of some of the toxic substances produced by the organisms which cause mumps. This must be done early in the disease before the necrotic process has become established, just as in strangulated hernia the operation should be performed early if resection of the intestine is to be obviated.

#### THE MENTAL AND NERVOUS CLINIC AT MACON\*.

N. P. Walker, M. D., Milledgeville, Ga.

It was only after very careful consideration that the trustees of the State Sanitarium for the insane authorized the establishment of the Clinic at Macon. This authority was given in July, 1919, but owing to unavoidable circumstances the work was not actively begun until November following. Through the hearty co-operation of the physicians of Macon the City hospital agreed to furnish quarters.

The object of carrying on the work is four-fold:

1st. It was believed that contract could be had with early cases of mental affection and with border line cases. And in this way commitment of some patients could be avoided.

2nd. To make a systematic attempt to render assistance to persons outside of the institution walls.

3rd. To afford a better opportunity for the Sanitarium physicians to come in contact with other physicians.

4th. Last but no means least to afford better opportunity for the study of early or border line cases, thus providing a stimulus which would otherwise be largely lacking.

The interest of physicians, and help rendered by the nurses has been extremely gratifying. The district tubercular nurses and some of those nursing for corporations have been especially helpful. The organized charities have also sent several patients. The venereal clinic has been of considerable assistance.

This paper is a sketch of the first six months work. The Clinic is open to any individual in the state. The hours two to five each Friday afternoon. Only ten patients from outside of Macon have applied to the Clinic, the others live within the City.

A total of (57) patients have paid (210) visits to the Clinic. Of these, eight appeared

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

to belong in the neurasthenic group; six in the psychasthenic; two in acute psychotic; two in chronic psychotic group; four were mentally deficient with waywardness; three were epileptics; one was a medico-legal case; two presented picture of paralysis agitans; three suffered from cerebral arterio-sclerosis; one was subject to habit spasm; one was of psychopathic make up; one was morphine habitue; one suffered from myxoedema; one cerebral syphilis; one was referred because of incontinence of urine; one because involvement of brachial plexus by new growth. The remainder did not fit into any group, but are perhaps best referred to as border line cases.

We regret that we are unable to make any definite statement concerning the number restored and the number improved. By far too many of the patients attended too short a time to accomplish much. Some, in which the prognosis appeared to be favorable, came only once and did not reply to letters enquiring concerning their condition. In such cases the services of a visiting nurse are almost indispensable and the work can never succeed as it should without the cooperation of such a nurse.

A striking instance showing value of early treatment is shown in the comparatively quick recovery of mother and daughter, suffering from neuroses. In both instances the duration was short. In contrast we may mention the case of another woman, a neurotic, who was practically an invalid for seventeen years, and had been in at least three private hospitals. It finally became necessary to commit this patient to the Sanitarium where she is improving slowly but steadily. We have the best of reasons for saying as indicated above that some, at least, would be benefited sufficiently to avoid commitment and to save heavy expense bills to the family. Every one at all familiar with mental diseases knows well that many early cases of dementia praecox present a preponderance of symptoms pointing to one of the neuroses and that a differential diagnosis is by no means easy. It is to be regretted that such patients cannot be seen early.

There was recently discharged from the State Sanitarium a woman who gave a history of neurasthenia extending back twenty years previous to admission. On account of inability to sleep and severe nervousness, the morphine habit was contracted, this necessitated her commitment. There is today in my service at the Sanitarium a highly educated woman who has suffered from one of the neuroses for years. She began to take opiates for relief and at time of admission was taking from eight to twelve ounces of paregoric daily. These two patients are mentioned for the sake of a parallel. One of the patients at the Clinic has suffered from neurasthenia for more than seven years. During exacerbations of nervousness opiates have been resorted to for relief. There is a strong probability that this patient might easily become an habitue were opiates as easily obtained as formerly. In an institution it is reasonably easy to break up drug habit, but the combination of a neurotic and drug habitue is a hard one so far as permanent relief is concerned.

The second purpose of the Clinic, that is, a systematic attempt to help those outside of the institution has been carried out. We must reiterate, however, that this cannot be done thoroughly without a visiting nurse.

The third purpose is being well fulfilled inas-much as we see more and more of the physicians and are helped by our contact with them.

In the brief course of our work we have seen a considerable number of cases such as we seldom or never see at the Sanitarium, that is, not at the same stage of development. We are of the opinion that the Clinic furnishes, in a modest way, opportunities for study that compare favorably with those to be had at the Sanitarium.

Our ultimate hope is to develop the work of mental hygiene. This inevitably leads back to children. We have done but little of this so far. An illustration will probably best convey our meaning. For the past five weeks we have seen a child of ten who complained of headaches, weakness and attacks in which she would place her hands over the cardiac region. She would have to lie down



immediately. She has already fallen behind in school because of the illness and if we are capable of judging she is in a good way to become a chronic invalid to be supported by some charitable organization. The mother, a widow, has seen much better days and life at present is a continuous struggle. The grand-mother has been an invalid for four years, and is cared for by the mother. The circumstances are such that assistance from the organized charities is necessary. The mother and child have been told that the patient has incurable heart disease, and the mother has become exceedingly anxious concerning the child, so much so that the little girl was restricted in exercises and stopped from school. Nutrition is good and two examinations of heart have revealed no organic disease. The description of the attacks is not suggestive of epilepsy. The child was advised to spend all the time possible in play in the open air and was assured that she would not suffer as a consequence. Sufficient improvement has taken place to make us feel certain that we are on the right track.

Our work has not been entirely satisfactory to ourselves because under the circumstances we have not been able to learn so much as we would like about the conditions, strain and environment under which our patients live. These are factors of prime importance in such work. We hope to be able to do more along this line at a later period.

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#### **AN ANALYSIS OF A SERIES OF HEART LESIONS WITH SPECIAL REFERENCE TO ETIOLOGY AND TREATMENT.\***

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R. H. Stovall, M. D., Macon, Ga.

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Four years ago, I remember hearing Cabot of Boston state that the Heart Problem was the biggest problem of today, and that twice as many dies every year from heart disease as from tuberculosis. The significance of this remark did not come to me then, but has grown upon me from my own experiences since that time. While not fa-

miliar with the programs of this body, for the past two years my impression is that subjects related to heart disease have not been umerous in proportion to their importance.

I think I shall have no trouble in getting many to agree with me, that since we began to study heart disease, the subject has always seemed complex and unsatisfactory. In these early studies two or three things stand out in the back-ground of my recollection, namely: look for a murmur, diagnose the murmur if found, outline the size of the heart by percussion, consign the patient to digitalis, complete rest and a short life. It is not my purpose to underestimate the importance of a careful search for murmurs, but to insist that we do not let out investigations into the murmur mystic maze cause us to lose sight of values more easily within reach. Recent tendencies, especially upon the part of such men as McKenzie and Lewis of England and Cabot of Boston and others, have been toward simplicity and a more satisfactory rearrangement of values.

The present discussion is based on the physical examinations of about 225 returned soldiers, of which 60 have been classified as having heart disease. While a few cases with valvular murmurs have not been included, in the absence of definite symptoms and other convincing signs of heart involvement, some have been included, no doubt, which a proper observation would have shown not to have actual cardiac involvements, but which on account of symptoms and doubtful signs were given the benefit of the doubt. It is probable that many of these latter would have come under the head of "Effort Syndrome, as described by Lewis, though not strictly cardiac primarily, with some other underecurrent disease manifesting itself after longer observation.

As it will not serve the immediate purpose, no classification will be given as to the kind of cardiac disease, except to say that about half were diagnosed as chronic valvular lesions, leaving a big field for myocarditis of a toxic type. As to causal factors, they are grouped as follows: Rheumatism 7, Tonsillitis 14, Influenza 13, Pneumonia 9, Gas

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\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

Poisoning 6, Hyperthyroidism 2, Meningitis 1, Syphilis 1, Gonorrhea 1, Round Worm 1, Unknown 2. This arrangement is as nearly accurate as could be obtained with history, many of which were unreliable. This classification is not given because it offers anything startling, but to serve as a basis for some observations. With the larger percentage of cases of influenzal and pneumonic source the incidence of the strictly endocardial and valvular lesions of the rheumatic or streptococcic origin is small. In a group of young adults it is not supposed that the arterio-sclerotic type would figure. During the influenza pandemic of 1918 at Camp Zachary Taylor many definitely known cases of influenza came to autopsy and the heart muscle was practically always affected; in 90 per cent there was more or less relaxation of the right heart; in over 80 per cent an associated cloudy swelling. Microscopically there was acute parenchymatous degeneration.

In deciding whether there was heart disease the effort was made not merely to locate a valvular lesion, but also to determine if there was myocardial involvement as evidenced by enlargement or other signs. It may seem simple to emphasize this feature, but my own experiences and the observation of other men would indicate the need of such emphasis. Digressing somewhat, one may not always be able to differentiate various valvular murmurs, but there should be little excuse for not recognizing that we are dealing with a pathological heart. The expert gets the hearts that are advanced, but the general practitioner has the opportunity of heading them off in the beginning stages. In the absence of unreliable symptoms as was true in many of the above cases and of advanced signs of decompensation the simpler methods of clinical diagnosis tell us the most.

Is the heart enlarged, is it rapid, regular, and how does it respond to exertion. Careful inspection and palpation tell us a great deal, locating the apical impulse carrying us not far wrong as to the left border. As the point of maximum intensity of the apex

beat corresponds to the left outer limit the stethoscope will confirm, and I think is far more important than percussing the left border. Not only am I not usually satisfied with my own percussion of the left border, but there are few in whose I would rely. With occasional exceptions having located the apical impulse outside the nipple line (or to be exact, anything beyond  $4\frac{1}{2}$  inches from the midsternal line) we may (of course considering rate rhythm, etc.,) conclude we are dealing with an enlarged heart, and one in which the myocardium is involved. Having put first things first, we are then prepared to study the character of the valvular sounds. The man who relies more on such aids as the X-ray and Electrocardiogram than his own clinical findings, as valuable as these may be, is in a sad plight, and it becomes a case of the tail wagging the dog. Am stressing the importance of the diseased muscle, rather than valvular lesions per se because this feature suggested itself in the above cases, especially damage resulting from infections.

McKenzie states that "Valvular defects should be considered not as specific affections within themselves, but rather as a source of embarrassment to the heart muscle and as indicating the presence of a lesion that may have extended to the heart wall." Lewis declares that "The hearts of patients upon whom these burdens of valvular disease are thrown fail because the heart muscle is unhealthy."

Doctors hesitate to use the diagnosis Mitral Regurgitation longer, without the presence of other changes, for who can tell whether it is functional or structural. In several examinations I have noticed the characteristic soft blowing systolic murmur at the apex in individuals where there was absolutely no other sign of diseased heart. And yet men are constantly being given the "thumb down" for life insurance with no evidence of heart disease other than an adventitious sound. The tendency to assume that heart failure in those who have valvular murmurs is due to valvular disease and that in those who have no murmurs to Chro-



nic Myocarditis is hardly warranted, for we know that a relaxed heart wall and other conditions will lead to the production of murmurs.

Will not discuss the prevalent symptoms here except to say that regardless of the character of the cardiac lesions, the principal subjective symptoms in the main were the same, namely, "shortness of breath" on exertion, fatigue and vague pains referred to the chest, mostly in the region of the precordium. It was noticeable that quite a few thought it was lung trouble rather than heart trouble because of this breathlessness.

As was to have been expected in all but one of these giving a rheumatic history, there was chronic valvular disease, and in all but two or three giving no other history than that of frequent attacks of tonsilitis and sore throat. Diseased tonsils were found in many throats giving other histories, as influenza, diphtheria and measles. One morning a young man with a mitral murmur, whose symptoms I had been observing, presented me with a bottle containing a round worm. The heart condition soon cleared up; that the causal factor was overlooked is not to my credit.

There were few in whom I was convinced that gas poisoning was the cause of weakened heart. Many give this history, but there were more potent causes in sight, and six were attributed to this, because no other causes could be determined. In the absence of other evidences of thyroid disease, it is not easy to say that one is dealing with this cause of tachycardia, especially where the facilities for determining the basal metabolism are not yet accessible to most of us. The two cases mentioned had some exophthalmus and slight thyroid enlargement, tremor and were very nervous patients with cardiac enlargement, and the heart rate from 110 to 130. Infections may arouse hyperthyroid activity. Recently a normal and vigorous college girl of 15 years was under my care for typhoid fever—usual course with no unto-ward symptoms. Convalescence was guarded and she was not allowed to return to

school for several weeks, and even then she was not permitted to return to her games and gymnasium exercises. Although her pulse had returned to normal following her illness, her mother now noticed it was rapid and continually around 120. This continued; heart examination showed no abnormalities and there were no symptoms. A barely perceptible thyroid enlargement was noticed. Her mother had been operated on for goitre. Rate has now returned to normal.

An examination for the cause of a toxic heart sometimes leads to the detection of some underlying infection. One patient that had been diagnosed as myocarditis was found to have an active chronic pulmonary tuberculosis.

The time at my command will not permit me, nor is it my desire to take up every phase of the treatment of heart disease, but to take up just a few. To begin with, where there is a suspected cardiac disturbance, the patient is entitled to a complete examination. To examine and find a murmur and an increased rate, write a prescription for digitalis and let it go at that, or finding no murmur, deciding that "all is well" is unjust both to the patient and the doctor.

Along with a careful physical examination should go a study of the history and a thorough search for any existing focus of infection. Are there diseased tonsils, does the X-ray show infection about the dental roots, in fact all possible sources. Unfortunately in a large percentage of cases, as in chronic valvular disease, the damage is done, and can't be undone, but if the myocardium is not too much involved, we can do a great deal toward guarding this patient and assisting him to live his allotted time. If the valves have already undergone change, the more reason why that heart should be protected from infection from whatever source, and if the myocardium has already been weakened the greater need for removing any focus that might be the "straw that broke the Camel's back," and for protecting that individual against future infec-



tion. It certainly offers a much better chance for the patient if we can detect the earlier changes and deal with them than to be brought face to face with an already damaged heart. As symptoms and not signs cause a patient to come to a doctor, it is the latter's place to find out what thing or things brought on this breathlessness or exhaustion, tasks which formerly had caused no inconveniences; we are thus sizing up the damage done, and estimating the "reserve" force used up. The majority of the cases of the kind we are here dealing with do not require medication, but their work and mode of living should be gauged for them. A short period of rest and observation may be necessary to begin with. It should be determined up to what point a patient can pursue his former occupation, or participate in some form of play or exercise without producing the symptoms mentioned, and then not allow him to go beyond this point. Suitable play for the younger and healthful work for the older. There are several cases now under our observation who have greatly improved under regulated work on the farm. A heart muscle will become flabby like any other muscle from non-use, and muscular effort assists the return circulation. Where there is exhaustion, sleeplessness and the nervous element is evident, enforced sleep and rest at times are necessary, and the bromides, veronal, etc., are useful in producing these. Morphine, at times is invaluable and while quieting a heart working overtime, it is a stimulant rather than a depressant as it sometimes supposed. Digitalis is a most useful drug in a certain class of cases, but not in most of the above mentioned. It is contraindicated in the tachycardia of thyrotoxicosis and where there is an active existing infection. With us it was most serviceable in the hearts already showing signs of failure—those designated as auricular fibrillation, with markedly increased rate, dilatation and absolute arrhythmia. There are two such cases that return about every 60 days for a course of digitalis treatment; the heart is slowed; they are apparently much

benefitted and in the meantime they do no work at all.

In dropsical cases it is additionally useful on account of its diuretic action. Of course all doubtful cases, especially where there is aortic regurgitation with dilatation, repeated Wassermann tests should be made and treatment given accordingly.

It is sometimes necessary to put these cases on a diet, and to guard against the tendency to overfeed, for we are familiar with the acute conditions likely to be precipitated by flatulency and gastric disturbances generally. Romberg says that heavy feeding increases the viscosity of the blood and thus increases the work. It is of course desired to nourish—but not to make these people fat, for this but adds to the load. Much has been said, about the "Irritable heart of the soldier," but I do not think that soldiers' hearts differ materially from those of other young men of civil life, especially those in school participating in athletics, college examinations, etc.

It is true that to a large extent we are still ignorant of factors underlying the cause of heart disease, but we have sufficient knowledge to form a working basis, and the principal things I want to stress are that we search diligently for every causal factor and remove it if possible, when found, protect the patient against reinfections, help him to develop his reserve force, help him to find for himself his capacity for work, and a work adjusted to this capacity. More may be accomplished along this line than we sometimes think.

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#### DISCUSSION ON THE PAPER OF DR. R. H. STOVALL.

*Dr. E. C. Thrash, Atlanta.*—This is in my opinion a most excellent paper, and its excellence consists in the fact that the author deals with cardiopathies and not with murmurs and valvular lesions. Take any of your textbooks and they start out describing all of the various murmurs and all of the various lesions of the valve, and that practically ends all discussion on the heart. As a general rule, heart lesions are much more critical than valvular lesions. In fact, I think valvular lesions, after all, play a minor part in heart disturbances. There is practically no such thing as a primary valvular lesion. The trouble began as a cardiopathy long before there was a valvular lesion. It may be a surprise to you, but tuberculosis

is almost primarily a heart lesion. You have serious heart lesions in typhoid fever; you have most serious heart lesions in pneumonia and in influenza. These lesions are due to the myocardial disease, that is, albuminous degeneration of the muscle fiber itself from toxicity. That ultimately leads up to valvular lesions, and it is a long step from one to the other.

You may misunderstand me when I say tuberculosis begins with a heart lesion. You get toxicities which weaken the muscular structure of the heart, and the first thing in tuberculosis is that you have tachycardia because you have a heart lesion. You have disturbances of the heart in typhoid fever and a myocarditis. In albuminous degeneration of the heart structure you have a lesion which will never get well. In the pneumonias you have myocarditis that will develop into endocarditis, and may or may not develop into a lesion of one of the valves. You get dilatation of the right side of the heart, serious destructive changes taking place in the muscular structures, and so much so that your heart will stretch on the right side, and eventually you may get a relative leak in the tricuspid valve. Those are the important lesions we should look to in our diagnosis of heart disturbances and think of them as being the primary cause of valvular disturbances.

So far as the etiology is concerned, it is so variable that it is impossible to touch on it in a five minute's discussion. But they are due to bacteriemias. That covers the whole ground. This thing of a person getting a lesion of his heart from a tonsil because juice may be pressed out of it is positively absurd. That tonsil can produce disturbances in the heart only when bacteria get into the circulating blood and set up an infection in the intima of the vessels, the heart lining—ultimately the leaflets of the valve—and produce destructive changes in these valves. This thing of a toxemia producing a heart lesion is absurd. It is so with the teeth, with the tonsils, with pneumonia, with tuberculosis. You must have a bacteriemia, infection of the intima, and the valves are covered with endothelial cells just as the whole heart is. These valves undergo destructive changes, and the disease is caused a long time before valvular diseases come about.

*Dr. Edward C. Cartledge, Atlanta.*—The essayist spoke of the causes of heart diseases and among them he mentioned syphilis. If one is in doubt as to the cause of a heart lesion in a particular case, I would urge him to watch that case and see if he has not a syphilitic heart.

Among the many cases of heart lesions the essayist spoke of infection and bacteriemias as causes. He spoke of the thyroid. I have heard it said that the thyroid may be largely syphilitic in some cases. He also spoke of rheumatism as a cause of heart lesions. I often think that rheumatism will be found in a large percentage of cases to be of syphilitic origin. Tonsillitis is another thing. More and more, as I investigate my cases carefully, I find in some instances the tonsils are syphilitic. So many of them are syphilitic that I do not now think about it. It is a general adenitis. The tonsils do not take on these infections. It is not unreasonable to say that, and I believe it is practically true. It would be interesting to know how many of the tonsils that are removed are found to be syphilitic, and how many hearts were involved on account of syphilis. I do not think a simple heart murmur has much to do with it.

I put a man on anti-syphilitic treatment who had had heart trouble. He had his teeth taken out and his tonsils removed. He recovered from his syphilis, went to work, and in two months his heart was as bad as it was before.

The doctor spoke of having these cases tested out by means of the Wassermann reaction. Don't depend upon the Wassermann reaction entirely. Go back and find out about the hearts of the grandmother, the grandfather, and see if he has not had syphilis. Look at the teeth of the children and of the grandchildren, and see if there is any evidence of syphilis at the bottom of the trouble.

*Dr. R. H. Stovall, Macon. (closing the discussion).*—With reference to syphilis, although I cannot prove that Dr. Cartledge is not right, I think he is seeing red with regard to syphilis as a cause. We sometimes go off at a tangent on some things that come within our own experience. I know for a while I was seeing a great many diseased tonsils. I am satisfied now a great many tonsils were taken out that were not the cause of the trouble at the time. We have had a great many tonsils taken out when the history showed that the trouble was due to something else. If there was any doubt about a certain case the tonsils were taken out. I have not had a chance to observe whether there was improvement following the removal of the tonsils or not. There was a time when the tonsil men believed that almost every trouble of which a patient complained was due to the tonsils. I do not think there are as many tonsils being removed today on account of focal infection as there were formerly. It is very essential, as we all know, to find the focus of infection, if possible, and remove it.

## UTERINE AND CERVICAL RADIUM HOLDERS.\*

Cosby Swanson, M. D., Atlanta, Ga.

Realizing the difficulty and importance of keeping Radium in the proper position, and knowing there were no suitable instruments for holding Radium in the cervix and uterus, led me to design and construct the following instruments.

Brass being less corrosive, less effected by Radium rays and a good Radium filter, was selected for the construction of the instruments.

Weed describes a cervical applicator for applying Radium to the cervix, the base of which is cup-shaped, similar to those which I have constructed. The shaft of his is shorter and screws into the base, a small nut is fastened to bottom of cup for attaching cord.

### Method of Application.

The Radium is placed in the filter and then in applicator, both are then placed in rubber sack, cord is attached and the cross at base firmly grasped with uterine forceps

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



Fig. 1

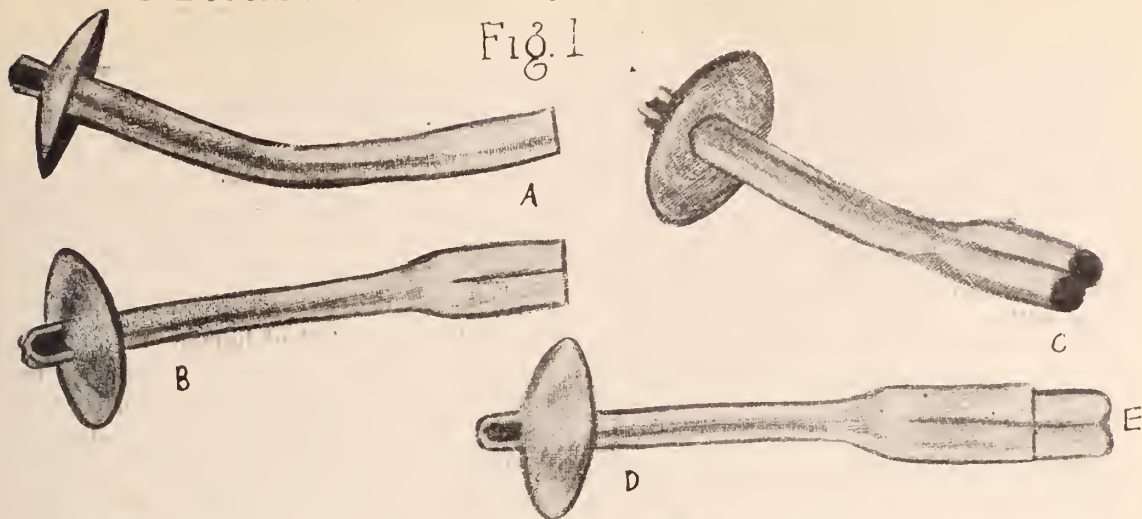


Fig. 2

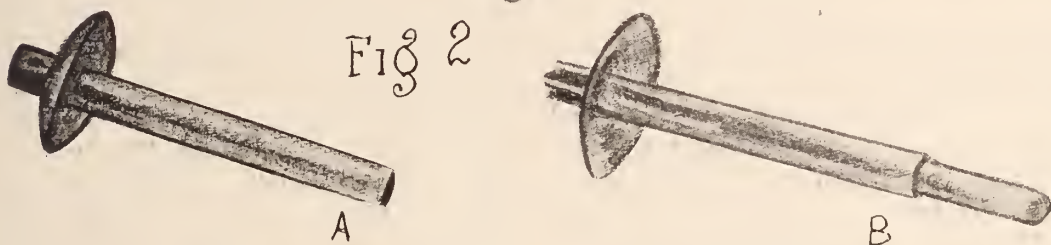


Fig. 3.

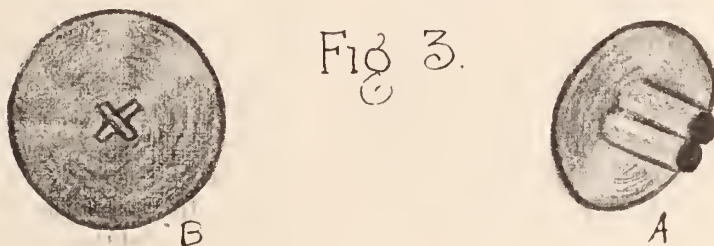


Fig. 4.

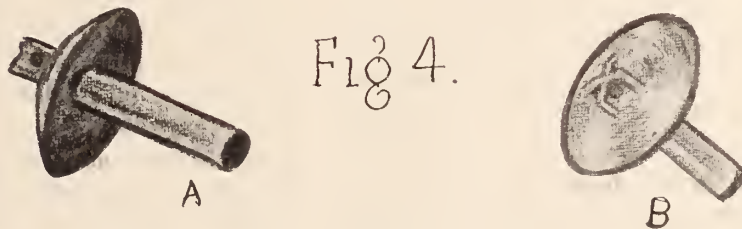


Fig. 5.

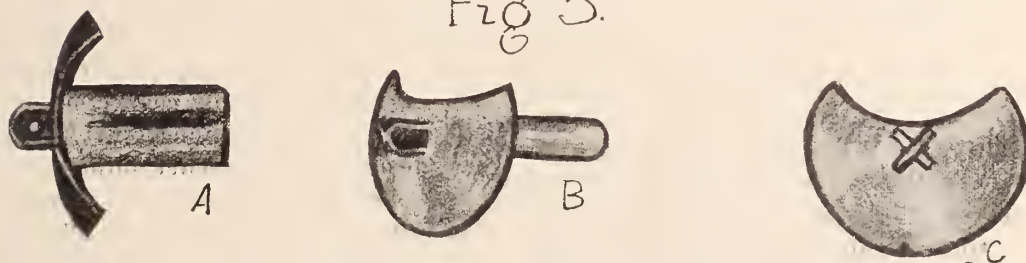


Figure 1. A—side; B—anterior; C—shows opening for twin filter; D—posterior; E—tandem filter in position.

Figure 2. A—side view of holder for tandem filter; B—with filter in position.

Figure 3. A—back view showing cross; B—front, showing opening for holder.

Figure 4. A—anterior view; B—posterior view.

Figure 5. A—anterior view; B—side view; C—base.



and placed in position. After it is placed in proper position, gauze is firmly packed against base and forceps removed. As a rule the best position for applying Radium is the knee-chest position.

The average diseased uterus being three to four inches in length, the three inch applicator will be required in the majority of cases. I have also constructed a two inch applicator to be used when a shorter applicator is needed.

Holder No. 1 is constructed for the application of Radium in team form so that the rays will affect the body of the uterus. It has a hollow shaft three inches in length slightly curved, giving the curvature of the average uterus. The opening at lower end 7/16 by 1/4 inch is slightly indented in centre holding team filter so that Radium can be used in team form. The circular base 1 1/8 inches across is depressed or cup-shaped and is patterned after the aluminum uterine pessary. Extending 1/4 inch beyond base are two strips forming cross which enables a firm grasp with uterine forceps, making application easier. These strips are pierced midway for cord attachment to assist in removal of holder and Radium.

Holder No. 2 is constructed for holding tandem filter so that Radium can be used in tandem form; this allows the Radium rays to ray the greater part of the uterine canal. The method of application is the same as No. 1.

Holder No. 3 is designed to hold Radium in the Cervix; the method of application being the same as Nos. 2 and 3.

Holder No. 4 is designed to hold Radium in the Cervix in tandem form. Method of application same as other holders.

Holder No. 5 has the same shaft as No. 3 only slightly longer; the base is larger (to give body) and crescent shaped. By constructing this applicator with crescent shaped base it does not cut off the view and enables one to apply it in proper position with less difficulty. The mode of application is the same as that for other holders.

## **A CONSIDERATION OF BREAST TUMORS, WITH SPECIAL REFERENCE TO SO-CALLED CYSTIC MASTITIS.\***

C. W. Roberts, M.D., Atlanta, Georgia.

Neglected tumors of the breast continue to exact a heavy toll of human life, and the pity of it is, the needless sacrifice. So far as the profession goes, it is not so much a lack of knowledge, as it is neglect of the simplest methods of examination of patients, which leads to the high mortality rate. We have to congratulate those members of our profession who, having set aside certain questionable rules of medical ethics which have hitherto hedged us about, now propose to take these vital questions directly to the people through public health lectures, etc. Popular education along these lines must be depended upon to reduce, ultimately, the death rate from mammary cancer. Lest we, as representatives of the Science of Medicine, block progress by preconceived or obsolete ideas bearing upon this subject, a few practical facts are presented.

Of the two classes of tumors affecting the breast, clinically speaking, the malignant group has rightly held first place in the interest of the profession. This is as it should be, and yet we must acknowledge with some chagrin, that tumors of this class still reach the surgeon late, so late that the statistics of most surgeons show a very small percentage of permanent cures. In seeking an explanation of this state of affairs, and basing my answer upon experience in connection with many personal cases, it develops that doctors still allow themselves to be led into error by failure to grasp certain simple, well-known facts. In this connection, we need frequently to be reminded that, contrary to the teachings of the older authors, cancer in any part of the body in the curable stage, and there is such a stage in all malignant tumors, is not a painful disease. In the curable stage cancer does not affect the general health. This disease is not ushered in with

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

a flare of trumpets; its onset is insidious, gradually and silently invading its host. Until these simple truths are appreciated fully, well might we dwell upon the "boon to humanity" which would result, were cancer initiated by such classical symptoms as attend acute appendicitis.

Perhaps we are privileged to live in an age stirred by a new order. In fact, we have but to look about us to see that the doctrines of yesterday are the heresies of today,—accepted practices, policies, conventionalities, teachings, both as affects men and nations, have been brought before the councils of men, assayed, and found to be dross. The colossal holocaust turned loose upon the world with the advent of the Great War, has shaken the very foundations of learning everywhere, and men have sought to find themselves, to search their hearts, to consecrate their energies in the noble pursuit of truth. With the changing of the maps of Europe has come a consuming passion in the heart of the Medical Profession, which operates to uproot unsound practices and hitherto unchallenged fallacies.

The old sequence whereby the patient comes seeking advice after wide metastasis has obtained, must be supplanted by one which discovers, in every lump in the breast, the potentialities of grave future danger. Surely the true physician, consulted by a trusting patient, who contemplates with seriousness his mission, and who rises to the sublime height offered him when he is permitted to exercise the holy rights of teacher, adviser, can no longer turn his patients away with the trite expression, "Don't trouble the lump until it troubles you." Like the sufferer of old, who lay helpless upon his cot by the Pool of Bethesda, and had no one, "when the waters were troubled" to give him the benefits of their supposed healing powers,—when a breast tumor, previously symptomless, and neglected many times on the doctor's advice, bestirs one because of pain, ill health, retraction of nipple or dimpling of skin, with the same laconic expression we are forced to answer, "You had no one, 'while your malady was curable' to bring

you in touch with surgery's healing powers; 'lo, the waters are no longer troubled., "

Have we not, in truth, exerted our energies largely on the defensive? We must assume the offensive, be constantly looking for this arch enemy of mankind, and by painstaking examinations, discover early the lethal tendencies which so frequently linger about so-called innocent tumors, often existing without the knowledge of the patient.

Every tumor is an unwelcome intruder. Many, perhaps all, possess cancerous potentialities. There is a time when all are curable; our problem is to discover that time. The practice of delay, as applied to apparently harmless tumors, the waiting for definite, local symptoms, the desire to make a positive diagnosis before operation, which can only be hazarded late; the yet somewhat prevalent idea that interference with a lump in the breast or elsewhere is likely to make it "turn into a cancer;" the expectation of pain, ill health, etc., furnish the effective camouflage under which the precancerous maladies of the past have been allowed to develop into conquering, malignant tumors.

Fallacies such as are suggested in the preceding paragraphs, coupled with the notorious lack of adequate examinations common to the practices of a large group of our profession, must be held responsible for the fatalistic attitude now borne toward the cancer patient. Although the extensive technic introduced by Halstead for the management of frank breast cancer, and with certain elaborations, now practiced by all surgeons, has greatly improved the percentage of five year cures, it must appear as a fact not to be questioned that the further reduction of mortality from cancer of the breast, as well as that of other regions, must result not from further mutilating elaborations of technic, but will be in direct proportion to the care exercised in discovering and properly dealing with all lesions that may serve as possible sources of future malignant degeneration.

While it is not possible with the methods now available, and in the present uncertain state of our knowledge concerning the



etiology of cancer, to prevent its frequent occurrence, it is my conviction that we as a profession have failed fully to appreciate the direct relation between this disease and chronic foci of irritation, from whatever cause.

It behooves us as clinicians, that splendid group of men to whom the bulk of people apply for advice, to bring the simple and practical facts accepted as contributory to the onset of cancer to the attention of all those coming within the sphere of our influence, whether they be patients or otherwise. This has rightly become a public question. As a servant of the public, and one interested in the public weal, our profession should accept the challenge offered. While scientific men strive with might and main to offer us a panacea, to the dawn of which day all look forward with fervent hope, let us, while we wait, double our effort and rekindle our zeal in seeking to apply the knowledge which they have already urged upon us. Let me again repeat that the death rate from cancer will fall when the masses are taught the simple, known contributing causes; when those of our profession who refuse to accept these simple facts have ceased their labors, and when the remainder have learned, from bitter experiences, to make careful examination of patients applying for treatment. The modern **doctor's** responsibility does not end with the prescribing of a cathartic.

Of the many primarily benign disorders affecting the female breast, one of more than ordinary concern to us, because of its strong malignant tendencies, is so-called cystic mastitis. Unlike solid benign neoplasms which are comparatively easy to recognize, this is the mammary condition most difficult to distinguish from carcinoma. This disease has been studied by several prominent investigators, from the time of Gross down to our own, and has received from them a nomenclature which attempts a histologic or pathologic description. Witness, "Cystic Disease of the Breast," of Reclus and Schimmelbusch, "Abnormal Involution" of Warren, "Senile Atypical Parenchymatous Hypertrophy" of Bloodgood, etc. If one desires a pathologic definition, that of Dr.

Whitney, of Boston, is probably most accurate,—“a fibrous and glandular hypertrophy with retention cysts.” Of practical importance to us however, is not a name, or even its pathology, but to understand its relationship to cancer.

There are a few essential facts that we must bear in mind regarding neoplasms in general of the mammary gland. Although a high percentage of cases of mammary tumor coming to the offices of surgeons in this state at the present time are considered cancerous by the first examining physician, if care is exercised in making an accurate and early diagnosis, it will be found that many of them are really benign. This conception is at variance with the popular idea. To elucidate this point, I wish to present a table taken from the April, 1915, issue of the "Clinics of John B. Murphy, M.D.," representing statistics of Dr. Rodman, of Philadelphia.

Carcinomata .....	83 (41.5%)
Abnormal involution .....	67 (33.5%)
Benign tumors .....	30 (15 %)
Papillary cystadenomata .....	6 ( 3 %)
Tuberculosis of the breast .....	6 ( 3 %)
Sarcoma .....	5 ( 2.5%)
Galactocoele .....	3 ( 1.5%)

It will be noted that only 41.5% of 200 cases were found to be carcinomatous. The idea which I wish to impress upon you is that while we in the State of Georgia are really seeing a much higher percentage of cancerous tumors of the breast, this fact is due to a lack of early discovery and study of the precancerous lesion. While the remaining 56%, as presented in the table, were clearly benign when operated upon, experience has shown us that delay in finding these primarily harmless tumors would have resulted in lowering the **benign percentage** by a shifting to the cancerous column. While chronic cystic mastitis is probably a benign lesion in its beginning, the majority of investigators have found that ultimately approximately 25% become carcinomatous.

Chronic cystic mastitis affects the male as well as the female breast, and appears from the age of 20 up to 70 years. It is more prone to affect women during the menopause, and the bulk of cases are there-



fore seen to fall between the ages of 40 and 50 years. Although it is most common in women who have given birth to children, about twenty per cent of such lesions are seen in nulliparae.

In its simplest conception, the pathology of this disease consists in an increase of both the fibrous and glandular elements of the breast, plus the formation of many small cysts.

As has been stated, the difficult task of the physician as concerns this disease is to make a differential diagnosis between cancer and cystic mastitis. Although pathologists disagree as to their ability positively to differentiate the microscopic picture of advanced cystic mastitis from that of carcinoma, there are essential differences in the two diseases as presented to the clinician. In the first place, cystic mastitis is frequently bi-lateral, cancer is rarely so. Cancer rarely gives any pain, certainly during the first year of its existence. Of course in its later stages if ulceration occurs, or when adhesions develop between the lesion and the skin or the costal wall, pain becomes a factor in cancer. It is to be borne in mind always that cancer is not an inflammatory disease. Cystic mastitis is inflammatory, and is always attended by a certain amount of pain. Pain is usually increased at the menstrual period; the breasts often enlarge visibly at the menstrual cycle, to subside as the period passes. Pain is always elicited when pressure is made over the areas of the breast containing small cysts or harboring inflammatory areas, which are the forerunners of cyst formation. A point noted in our cases, to which attention has also been called by Rodman, is the formation of enlarged veins immediately overlying the part of the breast affected by this disease. Another point of note is the fact that in cystic mastitis there are never adhesions between the diseased area of the breast and the overlying skin. Such adhesions are frequently noted even in the first year of cancer. While involvement of the adjacent lymph nodes usually argues for malignancy, this complication has been frequently associated alike with cystic mastitis. Since, however, enlarged nodes ac-

companying cystic mastitis are inflammatory in nature, they are usually painful on pressure. This is not true when the glandular enlargement is due to cancerous metastasis. In cystic mastitis there is frequently a discharge of clear watery or straw colored serum from the nipple, either independent of, or provoked by pressure over the cystic area of the breast. Rarely does cancer of the breast give a nipple discharge, and when a discharge is associated with malignant disease it is usually sanguinous, but not a bright red blood, which is almost pathognomonic of another benign lesion, namely papillary cystadenoma.

"On physical examination," as Judd states, "if the breast is taken up between the thumb and fingers, nodules can be distinctly felt, while if the hand is pressed flat against the breast, and the breast compressed against the wall of the chest, these nodules will not be felt. Just the opposite is true of cancer, as many times the only way a small, hard, cancerous tumor can be palpated is by pressing the entire breast against the chest wall." On manipulation of the breast at examination, a watery fluid is often seen to exude from the nipple. The nodules of cystic mastitis are found to be freely movable in the breast tissue. This likewise differs from a cancerous lesion in that a malignant process is invasive in type, and becomes quickly attached in the tissues of the breast, so as to give a fixed position to the palpating hand. In other words, by careful physical examination and close adherence to these essential differences, we can tell patients that they are suffering from chronic mastitis, but in view of the previous statement that 25% of these lesions are found to be cancerous when operated upon, we can never tell in a given case that the condition is not already associated with a malignant process. This is even more true if the patient consults us during the so-called cancerous age. Finally, chronic cystic mastitis must be looked upon as a benign lesion in its outset. Its tendency, however, to become cancerous in later stages of its development should be borne constantly in mind by the clinician.

Hence the care of patients presenting them-

selves with lesions of this type involves the exercise of seasoned judgment, tempered by a due regard for the individual needs of the patient. Of course the treatment is purely surgical. The only question at issue is whether or not a radical removal of the breast should be resorted to, or whether a more conservative operation of the Warren type should be done. This is and perhaps will remain an individual matter. My present conviction is that in a majority of cases, in order to accomplish a permanent cure, and to forestall a possible cancer death, a radical operation should be done. There are cases however, frequently arising in ones practice, where mitigating circumstances make it permissible to offer less radical advice. This is always true in cases of young women whose hope and outlook on life would be blighted by operations of the radical type. In such cases, careful removal of the cystic areas of one or both breasts should be resorted to, with the understanding that the patient is to be kept under close and constant observation. It is my feeling also that in these cases the true nature of the disease with its dangers should be thoroughly explained to the patient. Only in this wise will close co-operation be observed between patient and physician.

Conclusions: 1. Chronic cystic mastitis bears a definite relationship to cancer of the breast, and must be considered a precancerous lesion. Taking the reports of many investigators, this disease becomes cancerous in one out of five cases observed to their final outcome.

2. So-called cystic mastitis in patients above the age of 35, with suspicious malignant tendencies, should be treated by a radical operation of the Halstead type.

3. In that special class of cases in younger women, unassociated with frank malignant tendencies, and where for individual reasons the patients' future would be more or less blighted by the complete operation, the conservative plan should be adopted.

4. This disease is of more constant occurrence than we have heretofore believed, furnishing about one third of breast lesions, discovered on routine examination.

Finally, I wish to acknowledge my indebtedness to the writings of the late John B. Murphy, M.D., and to the studies of the Staff of the Mayo Clinic for the essential facts herein presented.

### THE TREATMENT OF ENCEPHALITIS LETHARGICA.\*

Stewart R. Roberts, S. M., M. D.

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Treatment is largely empirical and is based on clinical judgment and clinical results when we face a new disease whose cause we do not know. Added to this therapeutic difficulty is the limited number of cases any of us have seen and the briefness of observation thus far. However, we can all make better progress if a treatment that seems wise is used by different men in different areas, and receives the benefit of their combined trials, criticisms, and suggestions. Therapeutics is still an essential in clinical medicine.

The following summary of encephalitis is probably theoretically correct and the treatment is a natural sequence.

(a) It is an infectious disease as indicated by the onset, course, fever, paresis and paralysis, mastitis, typhus like eruption in certain cases, renal irritation, conjunctivitis.

(b) The localization is chiefly in the cerebro-spinal nervous system, as indicated by the signs of meningeal irritation, dullness, somnolence, stupor, coma, stiff neck, Kernig's sign, twitchings, Babinski reflex, coarse intention tremors, dilated pupils, rapid emaciation, decubitus, trophic disturbances.

(c) The infection or virus is non-pyogenic, localizes itself in the cerebrum to a greater, and the cord to a lesser degree, though it is probably at some time a blood stream infection as well; and is probably rather kin to the spirochetie or tubercular groups with their lymphocytes and globulin than to the meningococcic group with its polymorphnuclears and pus.

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(d) Histo-pathologically the disease is an acute encephalo-myelitis, involving chiefly the basal grey matter along the third ventricle, Sylvian aqueduct, lateral ventricles, medulla and pons. Any part of the grey matter from context to cord may be involved. There is round cell infiltration, congestion of the blood vessels, edema, hemorrhage, perivascular infiltrations, chromatolysis, and nuclear change.

Dereum's article on "The Functions of the Cerebrospinal Fluid" is important and worthy of careful reading. It aids to a proper understanding of the therapeutics of encephalitis as well as of syphilis. To summarize:

(a) The cerebrospinal fluid is essentially hydrostatic and innocuous, a common salt solution, neutral and negative.

(b) The blood and not the cerebrospinal fluid nourishes the brain and cord. The latter can therefore be drained without injury and with rapid re-secretion.

(c) Medication of the cerebro-spinal axis is attained through the blood. Whether given by mouth, through the skin, or directly intra-venously.

(d) Complete spinal drainage lessens intra-cranial pressure, furnishes lavage to the dural space, permits a greater blood supply with its contained drug to flood the brain and cord. Intra-venous medication to reach to brain and cord is best after spinal drainage.

The suggestions for the treatment may be summarized as follows and it is hoped that further contributions from various authors may modify or corroborate them:

1. Rest in bed in a darkened but well aired room. Careful attention to eyes, mouth, teeth and skin. Frequent changing of position to avoid bed-sores, which may come quickly. Rubber rest ring may be used if bed-sore is threatened, and appropriate treatment if it occurs. Attention to pressure symptoms on knees, legs and feet.

2. With marked fever and stupor, ice cap to head, which is elevated on pillows or head or bed raised six inches. Sponge baths if temperature rises to 103° or over. Forced

diet, even if only liquid diet by tube. Laxatives or enemas for constipation. For headache, body or limb pains, aspirin, phenacetin and caffeine in capsule in 3-2-1 proportion.

3. Lumbar puncture with drainage to full amount of spinal fluid, repeated every second to sixth day depending on improvement. If fluid is under increased pressure, drain slowly.

4. Immediately after lumbar drainage, or the next day at outside, give .2 to .6 gm. arsphenamine intra-venously, preferably in 100 to 250 c.c. of water. This is to be repeated in 3 to 6 days as indicated depending upon the size of the first dose, weight and condition of the patient.

5. Proctoclysis, half strength or normal salt solution, 2 to 3 hours on, and 1 to 2 hours off. We find the rectal musosa does not bear continual proctoclysis in this disease. Thirty drops to the minute is a fair average. With return of consciousness or ability to swallow, water freely or lemonade by mouth. Sodium citrate in 15 grain doses one to three times daily is well, if albumen, casts, or signs of a starvation acidosis appear.

In convalescence, tincture of nux vomica in 15 to 20 drop doses thrice daily, and fluid in abundance are well. Residual sequelae are treated on their merits, and usually improve. Care, nursing, food and treatment is easy in the mild cases; the unconscious stuporous cases with high fever, involuntary stools and urine, embarrassed or impossible swallowing, are difficult.

The value of the lumbar puncture in drainage is apparent. After arsphenamine intravenously we have been surprised at the favorable change, usually in 24 hours. In one case the temperature dropped from 105.5° to 102°, and in another, consciousness returned. It is well not to pronounce one of these cases well too soon. We knew one case to leave the hospital apparently well and was dead in a month; another developed epilepto-mania on the day he was supposed to be dismissed. In short, the disease is characterized usually by diplopia, fever, ocular and facial paralysis, mental dullness to coma. Once suspected, "a cell count in the



cerebro-spinal fluid of from 10 to 100 small mononuclears along with a positive globulin reaction, with negative Wassermann and negative bacteriological smears and cultures is strong corroborative evidence of the existence of the disease." (Barker, Cross, Irwin.) The treatment is rest, nursing, food, lumbar drainage, arsphenamine, fluid by mouth or proctocysis. Prognosis is uncertain.

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#### DISCUSSION ON THE PAPER OF DR. STEWART R. ROBERTS.

*Dr. Hansel Crenshaw, Atlanta.*—I believe the treatment of this disease is very much like one of the chapters in a book on Ireland. In the chapter devoted to snakes, the author stated "there are no snakes in Ireland."

Now, the treatment of encephalitis lethargica is purely symptomatic. It has been shown that there is no specific treatment for this disease. Many men have thought that urotropin is worth while; I do not know whether it is or not.

I have had six cases of this disease, two of which have died; two made apparent recoveries; one remains physically well, but his mental condition is not good, and the other is still quite sick.

*Dr. Edward C. Cartledge, Atlanta.*—I have never had a case of encephalitis lethargica in my life, and I know very little or nothing about the disease. However, should I have such cases I would treat them symptomatically as pointed out by Dr. Crenshaw. I feel occasionally that we should not treat our cases symptomatically. Here we have an acute condition to deal with. We try to abort pneumonia with large doses of phenacetin and big doses of opium. In an acute condition like this, it would be wrong to give caffeine. I feel that phenacetin and aspirin are reasonable in an acute condition. There is nothing constructive in having an absorbent. I feel theoretically that if we give a little bromid or aspirin or a little phenacetin we do well. After the patient has passed the acute stage, if I feel we are going to have neurotic symptoms, then we need constructive, and not symptomatic treatment.

*Dr. John Funke, Atlanta.*—The spinal fluid is not always the same. It varies in the same case. I have seen a cell count as high as 90 at one time, and in the same case it would come down to 10 for a few days. I have seen absence of increased globulin.

I have seen in one case what I would call a false positive Wassermann; .2, .4 of c.c. of spinal fluid was negative; 8 slightly positive. The blood in that particular patient was negative. I have seen that in two cases.

The question arises, was there a combination of syphilis and encephalitis, or was it a purely modified Wassermann of the spinal fluid. I have seen in another case a positive marked colloidal gold reaction of the spinal fluid. I believe that the pathological condition of the spinal fluid is not constant.

Another point I want to make is that in the very mild cases the diagnosis is not so easy as in the well developed cases. The first man who described the disease mistook it for intestinal intoxication.

*Dr. Stewart R. Roberts, Atlanta.* (closing the discussion.)—Referring to Dr. Crenshaw's discussion I must confess that I fail to see the connection between snakes in Ireland and the pathological condition of one of these patients with encephalitis.

In the next place, if a member of my family or of my professional brethren should be unconscious and stuporous with encephalitis, I should not like to see him treated with phenacetin. I agree with Dr. Cartledge that occasionally we should attack these cases locally by following the recommendations of the leading neurologists of this country and Europe, and extract the cerebrospinal fluid and do the best we can for the patient.

The pendulum of diagnosis in the study of these cases has gone too far, but the pendulum of rational therapeutics has not gone far enough.

As to the use of caffeine in doses of 10 to 15 grains, an anodyne capsule to relieve the pain and suffering of these pitiful patient is a good thing and a grain of caffeine never hurts anybody.

This condition is very serious. It is insidious. Dr. Barker told me that he had been simply nonplussed with treatment and was grateful for suggestions. Lumbar puncture is practically universally used, and since Dercum has shown we can extract the cerebrospinal fluid to the last drop, it has been followed practically all over this country and Europe.

**The Fundamentals of Anatomy.**—By Marsh Pitzman, A.B., M.D., Professor of Anatomy in the Dental Department, Washington University, St. Louis: C. V. Mosby Co., 1920. The subject matter of this text is written in a very dogmatic style. Essential practical facts are emphasized. Little consideration is given to the cutaneous nerves and superficial fasciae. Every term is explained at its first appearance so that any student without advanced education may easily follow the text. Logic is introduced as far as possible to take the place of memorizing. The book is very readable. The nomenclature adopted by the B. N. A. is followed. It is in one Volume, 365 pages, well illustrated with 101 diagrammatic illustrations. Any one desiring a readable review of practical facts of anatomy will do well to get this book.

—Pruitt.

## INFANT FEEDING FOR THE GENERAL PRACTITIONER.\*

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Infant feeding, for the general practitioner too often means artificial feeding. It should mean normal infant feeding, which is maternal nursing. All food for infants should contain fat, proteid, carbohydrate, water and salts. These are found in human breast milk in the right proportion, delivered to the baby in a short haul, free from bacteria, at the right temperature and containing protective substances.

Infant feeding in generally accepted terms, is the adjustment of food elements from other than human sources to imitate mothers milk, adapted to the digestive function of the individual babe. No matter how closely this is approached, we do not get mother's milk. That SOMETHING; salts, enzymes, vitamins or a yet undiscovered element is not there to give satisfaction, contentment, firmness, nutrition and happiness that is usually found in the normal breast fed infant.

Authorities on pediatric practice tell us that their mortality is 15 per cent higher among the artificially fed. This being true what then is the mortality among the little patients of the rank and file of pediatricians who see in their practice the largest number of infants in this country? The general practitioner. What then is his record of infant mortality? There are other classes responsible for high infant mortality due to improper feeding and early indiscriminate nurse, the mid-wife, the meddlesome neighbor and the patent food vendors.

Belgium reduced her infant mortality during the early years of war. There was very little milk to be had so the mothers were forced to nurse their own children. This was precisely the situation during the siege of Paris in 1870 and the Lancashire cotton famine in England. The demand on the

breast was answered, as it usually is by an increase in the normal life giving supply. England reduced her infant mortality rate, America can and should reduce hers still more.

There are many factors in the reduction of infant mortality, but the simplest and greatest of all is MATERNAL NURSING. The public must be educated to the fact that no satisfactory substitute for breast milk has as yet been found; the nurse must realize that when she weans or changes a feeding formula she may be signing a baby's death warrant; the medical student and the young physicians must awaken to the realization that babies do not live and thrive on theories, complicated formulaes, or calories; that cows' milk was made for calves to develop into beeves; that mothers' milk was intended for the human infant; also that any one brilliant example of a method of infant feeding does not stand the test of time.

The general practitioner and obstetrician should cooperate to conserve mothers milk more than they do. If they have not learned or are not interested enough to adjust breast feeding or cows milk to the infant, they should refer their cases at once, not weaning or developing an intolerance for one or more food elements.

More confidence than is usually expressed can be placed on the mother's breast to functionate. Few mothers refuse to nurse if the situation is placed squarely before them, if they knew the facts they would cooperate to nurse their off-springs. Many mothers have been led to think their babies can be fed just as well artificially, all they need is the assurance to convince them otherwise. Explain to her the diseases of malnutrition, the "delicate child" problems brought about by the difficult feeding so frequently associated with the artificially fed.

Having secured the consent and confidence of the mother in her ability to nurse her baby she must be encouraged. Relate the experience of one wet nurse feeding exclusively five babies, another ten, giving over 100 ounces of milk a day. Make her feel that the baby CAN be fed artificially but

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that the baby will be happier, healthier, and gain faster, look prettier, be more easily reared for, also will be a stronger man or woman, if fed on breast milk entirely or in part. Let her understand too that because she had no milk, or her milk "disagreed" with her former child, that it does not follow that she cannot successfully nurse this one. If you get a mother on a proper balanced diet, exercise sufficient for her needs, diversion, especially away from her baby, for a time each day, let her be happy, contented, free from worries, there will usually be ample milk, and to spare.

Each patient is a problem; approach it, not as an artificial feeding problem, but as a breast feeding problem. Solve it when the breasts are functioning. Lactation is a normal physiological process. It is frequently the unwise interference that creates artificial feeding problems. Do we put the same time and thought on the case when the baby is on the breast as we do when the baby is weaned? Attack the problem before it gets too serious. Do we approach the subject intelligently or do we admit defeat? We have on our desk a sliding scale, compliments of a baby food concern, one for sick and one for well babies. The weight of the baby, the age of the baby—behold! milk, water and food, all worked out. There is also an attractive book of formulas, surely there is one for the baby; number 23—looks good "A little water added to blank tablespoonfuls of this food can be digested by the child" reads another pamphlet for the busy doctor. The physicians have obligated themselves to save 100,000 children, add your proportion by maintaining maternal nursing.

It is usually customary if the baby is breast fed, to question no further, as if there were no faulty breast feedings. The feeding interval, the length of time at the breast, the night feeding schedule, the position while nursing, whether one or both breasts are given at a feeding, are all worthy of careful consideration. The diet of the mother, her worries, habits, recreation, temperament, disposition, menstruation are not

at all irrelevant to the question of maternal nursing, any or all may be subject to adjustment for the welfare of the baby.

Is the baby getting enough? Is he getting too much? Does he get it too fast? Does he nurse too long? Weigh the baby before and after nursing, weigh every five minutes, knowing that an ounce of milk weighs an ounce, make deductions and adjust accordingly. If you are convinced he does not get enough let him nurse both breasts, then fill in with a simple dilution formula of cows milk until the constant regular stimulation increases the breast supply. If he gets too much shorten the nursing time at each feeding, then it is well not to forget to empty the breasts by expressing the milk, or nature may cut short the supply. If at three or five minutes intervals the scales show an abnormal gain, showing the milk is being taken too fast, elevate the arm of the mother lessening the grade of flow, or have the mother hold back the milk, as some can do by compressing the breast near the nipple, weigh not in the morning or afternoon, but both as the supply varies. Do this in order not to too quickly draw conclusions. Some information may be gotten from a careful analysis of the breast milk. This is a refinement that is open to many general practitioners, but really does not come within the scope of this paper. An analysis showing the milk apparently too high or too low in fat has frequently caused the removal of the baby from the breasts when really the milk equilibrium either has not been established or the specimen was not correctly obtained. Therefore do not too quickly act on the report of the laboratory. The best test of the efficiency of the milk is a steady gain in weight and the well being of the baby.

If it is necessary to give an additional feeding resort to the complimentary feeding not a supplemental. If the feeding schedule is 6-10-2-6-10 after nursing one or both breast as your decision in the individual case dictates, give a feeding at each nursing time before or after, preferably after, not the supplemental or substitute feeding.



When there is a failure to call on the breast for service, nature frequently assumes that the supply is not needed, then a decrease in the supply of milk usually takes place.

Attacking the feeding problem while it is a breast feeding problem, rather than an artificial feeding problem has several advantages. First because it is usually easier, is safer for the baby, and brings greater returns. The character of any foundation determines its later strength and endurance. Is not the foundation of the human structure our most vital responsibility? The physical development of our future citizen is often made or marred by the first few months foundation. Let not our carelessness or indifference rob an individual of his fullest mental and physical possibility.

This paper on maternal nursing, offers no more than what was stated some 1800 years ago by Gelius, and not nearly so well. It is fitting therefore to quote from a translation, the appeal of Favorinus the philosopher as written by Gelius entreating mothers to nurse their babies. His appeal was made to prevent a mother from following the custom of the time allowing a wet nurse to suckle her babe. As a tribute to his eloquence and foresight I quote.

\*"I entreat you, to be the sole and entire mother of your own son. For how unnatural it is, how imperfect and half motherly only, to bring forth a child and instantly send him away; to nourish in your own womb, with your own blood something which you have never seen and then to refuse to support with your own milk the object which you now see endowed with life an human attributes, imploring the tender care of a mother.

"And do you suppose, that nature has given bosoms to women only to add to their beauty—more for the sake of ornament than for the purpose of nourishing children. Because some women believe this they unnaturally endeavor to dry up and extinguish that sacred fountain of the body, the natural nourishment of man.

"They do this with the same insensibility as those who endeavor by the use of quack

medicines and in other ways to destroy their conception lest the same should injure their persons and their figures. Since the destruction of a human being in its first foundation, while he is still in the hands of his artificer nature, receiving life itself, is deserving of public detestation and abhorrence, how much more so must it be to deprive a child of its proper, its accustomed and congenial nutriment when at last it is perfected and produced to the world? It will be said perhaps, that this omission is of noneconsequence provided it be nourished and kept alive by human milk, whoever may nurse it. Why does not he who says this, if he be so ignorant of nature's workings, suppose likewise, that it is of no consequence from what body or from what blood a human being is formed and put together? Is not that which is now in the breasts, the blood of the mother which has become white in color by much spirit and warmth—indeed the same that was in the womb? And is not the wisdom of nature apparent also in this—that as soon as this blood, which is the artificer, has formed the new human body within its penetralia, it rises into the upper parts and is ready to cherish the first particles of life and light, supplying known and familiar food to the newborn infant? Wherefore it is believed with reason, that as the power and quantity of the parent cells avail to form likenesses of the body and mind, in the same degree also the nature and properties of the milk are potent toward effecting the same purpose. Nor is this confined to the human race; it is also observed in beasts. For if kids brought up by the milk of sheep, or lambs with goats, it is plain by experience that in the former is produced a harsher sort of wool, in the latter a softer species of hair. So in trees and in corn, their strength and vigor is great in proportion to the quality of the soil and moisture which nourish them, rather than of the seed which is put in the ground. Thus you often see a strong and flourishing tree when transplanted die away from the inferior quality of the soil. What can be the reason, then, I ask you, that you should corrupt the dig-

nity of a newborn human being formed in body and mind from principles of distinguished excellence, by the foreign and degenerate nourishment of another milk?

"When a child is removed from its mother and given to a stranger the energy of maternal fondness is checked little by little and it becomes much more easy to forget a child which is put out to nurse than one of which death has deprived us. Moreover, the natural affection of a child, its fondness, its familiarity, is directed to that object only from which it receives its nourishment, and as a consequence, the child having no knowledge of its mother, does not regret her loss.

"Having by this destroyed the foundation of natural affection, however, children thus brought up may seem to love their father or mother, that regard of theirs is not natural but the result of civil obligation and social opinion."

Can we add anything more beautiful or convincing? If this could apply then, to the wet nurse, how much more does it apply to our modern machine made infant foods and more forcibly demands of us the maintenance of maternal nursing.

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\*Foote John "An Infant Campaign of the Second Century," Archives of Pediatrics, Vol. 37—No. 3.

#### DISCUSSION ON THE PAPER OF DR. W. L. FUNKHOUSER.

*Dr. W. A. Mulherin, Augusta.*—Simplicity in infant feeding is the keynote of success. The simplest, and unquestionably the best, is maternal feeding, as mentioned by Dr. Funkhouser. That more mothers can nurse their babies, than was formerly believed, has been, and is being, demonstrated every day.

It is now generally recognized that with complementary breast-feeding 94 per cent of mothers can nurse their babies for three months; 85 per cent six months, and 74 per cent, nine months. This being a fact, is it not the imperative duty of every physician to insist upon complementary breast-feeding, and thereby in an effective manner help lower the infant mortality of today, which is no credit to the medical profession?

Simplicity should also apply to the artificial or complementary feeding that is given the baby after it has nursed each breast ten minutes. It is only necessary, in constructing a formula for artificial feeding, to bear in mind two essential facts that are requisite in any sensible artificial feeding. These basic principles are:

First, That the artificial feeding shall contain all the ingredients, like fats, carbohydrates, proteins, salts and water, that are found in mother's milk.

Second, That these ingredients shall be there in sufficient quantities to repair the necessary waste of tissues of the body, to generate enough heat and

energy for maintenance of life, and enough to promote normal healthy growth of the infant's body.

To reduce these essentials of correct infant feeding to a practical basis, it is only necessary to use cow's milk, which contains all the ingredients found in mother's milk; dilute same with water, and add sugar or barley flour to suit the digestive capacity of the infant.

The adaptability of a formula to the baby's digestive capacity can be successfully gauged by watching the character of the baby's stools, and letting the appetite of the child influence us in strengthening the ingredients in the formula.

One other important point should be mentioned in this connection, and that is, always begin artificial feeding with a very weak formula, and if within two or three weeks' time you will have strengthened your formula to the point where your baby begins to gain in weight, you will have done well.

I believe the most common and fatal error committed today, in artificial feeding, is to start the baby on a too strong formula, and thereby upset digestion, and make the case a more difficult one to feed.

*Dr. W. L. Funkhouser (closing the discussion.)*

This symposium on Infant Feeding takes up first the maternal feeding, deserving the place of most importance. I have tried to show that we must exhaust all possible means to adjust breast feeding, rather than develop an artificial feeding problem.

Dr. Mulherin has paid his respects to full maternal nursing and has emphasized the most important adjunct for the maintenance of breast feeding both for the interest of the child, and the satisfaction and happiness of the mother. Complementary feeding has done more, I believe, to save babies than any other one thing that has ever been done. It is not unusual, but indeed frequent, that when the mother has become adjusted to her new conditions, milk equilibrium established, and the baby gaining and satisfied, that the complementary feeding has been dispensed with and a full time breast nursing instituted.

artificial feeding advising the adoption of food artificial feeding advising the adoption of food elements, fat, proteid and carbohydrates to the individual patient, rather than a "rule of thumb" procedure or the haphazard method of various patent food recommendations.

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#### CHIROPRACTIC CANDOR.

In Butte, Montana, recently there was a convention of "chiropractors." This August assembly was addressed by one of its shining lights—Mr. Palmer, of Davenport, Iowa, "the Fountain Head of Chiropractic." To the local newspapers Mr. Palmer explained:

"Our school back at Davenport is established on a business and not a professional basis," Mr. Palmer said. "It is a business where we manufacture chiropractors. They have got to work just like machinery. A course of salesmanship goes along with their training. We teach them the idea and then we show them how to sell it."

Commendably frank! They do work like machinery; from the eyebrows down. *The Journal* has always held that "chiropractic" is a trade and not a profession; Mr. Palmer's admission makes it unanimous. —*Jour. A. M. A., Nov. 6, 1920.*



**THE JOURNAL**

OF THE

**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia

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Clinics and	
Case Reports.....	C. E. Waits, M. D., Atlanta

**Editorial Department****A DISTINCTIVELY SOUTHERN ENTERPRISE.**

We have become so accustomed to obtaining our medical light from the eastern and northern states, that it is most refreshing and inspiring to receive a publication—THE MEDICAL INTERPRETER—a comprehensive and practical resume of the world's

best medical thought, so arranged as to be available without effort or lengthy consumption of time.

This method of imparting scientific information is now being employed, not only by the United States Government, but by all the leading countries of the world, and seems the only method by which elimination of the chaff and substitution of the grain can be made practicable.

This work had its inception in the minds of southern men, its editors being practitioners of the Southern States. From the standpoint of the publishers, no apology is needed, for it is every whit as attractive in appearance and tastefully assembled as any publication from north of Mason and Dixon's Line.

The Journal congratulates those responsible for this achievement, hoping that the encouragement accorded this worthy undertaking may stimulate others to emulate its example.

**ORTHOPEDIC SURGERY.**

Orthopedic surgery is that part of general surgery, the object of which is to prevent and correct deformities in the bodies of children. The name is often used, however, with a more extensive significance to embrace the correction or prevention of deformities at all ages. A new era has begun for this specialty through the impetus given by the demands of the recent war.

The old conception of orthopedic surgery as held by the profession at large is undergoing a rapid transformation. We are beginning to realize that orthopedic surgery of today is something bigger, broader, more comprehensive than the orthopedic surgery of the past. Orthopedic surgery is now grown up; her field of endeavor is enlarged. In the decade preceding the war, she had already reached advanced, awkward adolescence; and even then, she ministered increasingly to the adult cripple and his problems. From now on she will find herself facing the cripple problem in its entirety, and she will have to join with municipality, state and Union in order to solve it properly.



Leadership lies before her in the care, not only of the child cripple, but also of the industrial cripple.

With the lesson that the war has taught us, and with a sufficient breadth of vision by the medical profession, orthopedic surgery should be recognized as the logical co-operator and adviser in almost every surgical, educational and corrective problem that may arise.

—Toepel.

### COMBINED OPERATIONS.

The insistent request by many patients that all conditions needing operation be dealt with at one time demands serious consideration because patients are averse to repeated operations, and not without cause. The impression one gains by visiting the larger Clinics is that undue conservatism is the rule and the query arises in my own mind is it justifiable?

In 1913 I critically studied thirty cases during their first week in hospital, whose general condition was more or less uniform, fifteen having simple and fifteen having multiple operations. We would refer to a simple operation as including curettage, perineorrhaphy, shortening round ligaments, and appendectomy, while adding a hemorrhoidectomy cholecystectomy, tonsillectomy, teeth extraction, or simple amputation of breast, as combined operations. In these cases, the average number of operations per patient in the simple class was 2.4 while in the combined class the average number was 4.6.

1. The pulse record was studied and when the percentage of the number of operations was increased by 91% the average pulse rate increased only 2%, the temperature remaining the same in both classes.

2. The amount of morphine used in combined was 71% more than in simple operations.

3. The average number of vomits was less in the combined class.

4. While the increase of number of opera-

tions was 91%, the average increase of days before sitting up was 17%.

Conclusion: Since 1913, we have practiced the rule of multiple operations when needed but always with complete deliberation and frequent consultations with our associates and in no instance have we seen fit to regret it.

—R. M. Harbin.

### COMMUNICATIONS.

Dr. Allen H. Bunce,  
Healey Building,  
Atlanta, Georgia,  
Dear Dr. Bunce:—

I am enclosing you copy of letter I wrote to Hon. A. O. Blalock on September 13th, in regard to osteopaths being registered under the Harrison Narcotic Law in this State. I am also enclosing copy of a reply to this letter from Mr. Blalock.

If you see proper, I think it would be a good idea to publish this correspondence in the Journal of the Medical Association of Georgia. It is my understanding that in future osteopaths will not be allowed to register in this State and that the five to whom licenses have already been issued, will have theirs recalled.

Yours very truly,

C. T. NOLAN, Secretary.

Oct. 19, 1920.  
Marietta, Ga.,

State Board of Medical  
Examiners of Georgia.

Hon. A. O. Blalock,  
Collector, Internal Revenue,  
Atlanta, Georgia.

Dear Sir:—

I have a letter from Mr. J. L. Patrick, Chief Officer Deputy Collector, of the 10th instant, replying to mine of the 6th instant, in which he advises me that there is nothing in the "law or regulation to prohibit an osteopath using narcotics in his practice provided he is lawfully entitled to practice his profession in the State in which he is registered."

In 1909, when the present osteopathic law was passed by the Legislature of Georgia, it was done so principally on the idea that osteopaths were not practitioners of medicine, did not use drugs and simply used what they called osteopathic treatment, in other words, massage. I have taken occasion to examine the law which was passed in 1909, and note that the subjects required for examination are anatomy, physiology, chemistry, toxicology, pathology, diagnosis, surgery, medical jurisprudence and principles of osteopathy. It is stated that the Board may examine upon such other subjects as they require. It is not stated, and it was certainly not the intention of the law to give osteopaths the right to prescribe drugs.

In Section 15 of the Medical Practice Act of Georgia, which was approved in August, 1913, and amended in August, 1918, it is stated that the law does not apply to "osteopaths not practicing medicine or administering drugs." Under this law osteopaths are clearly prohibited from administering drugs. It has never been the intention of any of the osteopathic laws to give the osteopaths the right to practice medicine in the full sense of the word, that is, to prescribe medicines, narcotics or otherwise. Pardon me, but I cannot help but believe that your ruling in this matter to allow osteopaths to register under the Anti-Harrison Narcotic Law is not in compliance with the laws of this State.

Yours very truly,

C. T. NOLAN, Secretary.

Sept. 13, 1920. Georgia State Board of  
Marietta, Ga., Medical Examiners.

Atlanta, Ga., October 11, 1920.

In re: Narcotic Law.

Dr. C. T. Nolan,  
Marietta, Georgia.

Dear Sir:—

As previously advised your letter of September 13, 1920, was forwarded to the Federal Prohibition Commissioner for a ruling as to the registration of osteopaths under the provisions of the Harrison Narcotic Law.

I am today in receipt of a letter from the Commissioner in which he advises as follows:

"You are advised that, if under the laws of the State, osteopaths are permitted to use narcotic drugs in their practice, they may be registered under the Harrison Narcotic Law, otherwise they are not entitled to such registration.

If, as it appears from Dr. Nolan's letter, osteopaths are not permitted to dispense or administer narcotic drugs in the State of Georgia, you should refuse to register them."

If the preceding paragraph is true, no osteopaths will be permitted to register with this office in the future.

Respectfully,

(Signed) A. O. BLALOCK, Collector.

### MEDICAL ABSTRACTS.

Edited by

M. F. Morris, Jr., M.D.

### A Clinical Apparatus for Measuring Basal Metabolism.

By F. G. Benedict and W. E. Collins, (Boston  
Medical and Surgical Journal, October  
14th, 1920).

To fill urgent clinical needs, the portable respiration apparatus has been modified, reduced in weight and provided with support and stand so as to make it a strictly portable apparatus. Three series of comparison tests on two different subjects with widely varying basal oxygen requirements show that the most satisfactory results can be obtained.

### Organotherapy In Froehlich's Syndrome.

De Quervain, in Schweizerische Med. Woch., July 15th, 1920, reports the case of a girl of 12 years who at the age of seven began to develop the picture of Froehlich's disease. The sella appeared to be normal. At the period of complete evolution, the child resembled a fat woman at the time of the menopause. Hypophysis extract, first of the anterior and later the posterior lobes, was given. The girl began to lose weight and to

gain in height. While there have been remarkable changes for the better, it is yet possible to recognize the Froehlich type in the child's make-up. The menses have not yet appeared.

#### **Blood Chemistry of Pernicious Aenemia.**

A. O. Gettler and E. Lindeman (Archives of Internal Medicine, October 15th, 1920) come to the following conclusions from the chemical and physical analysis of the blood of 87 cases of pernicious aenemia:

1. The non-protein nitrogen, urea and creatinin values are somewhat higher than normal. This is probably due, not to a permanent kidney lesion, but rather to the decreased amount of circulating blood.
2. The uric acid is much above normal.
3. The amino-acid content is greatly increased, due to excessive destruction of serum protein.
4. The blood sugar is abnormally high.
5. The alkaline reserve is sub-normal.
6. The refraction and specific gravity are astonishingly low.
7. The freezing-point is very near normal.

#### **Therapeutic Results in Heart Disease.**

From a study of one thousand cases, Bishop (Medical Record, September 25th, 1920) finds that digitalis is a remedy of great value in cardiac disease and that there is no reason to go outside of digitalis in the use of analogous drugs; that hydro-therapy, psychotherapy and graduated exercises are much superior to attempted specific medication; and that at the time when heart patients reach the cardiac specialist, it is usually too late to obtain any special result from the removal of focal causes.

#### **Case of Hypopituitarism.**

An interesting case of this condition is reported by Lissner (Endocrinology, IV, 3, 1920). A male child of 23 months was normal to the ninth month, when he began gaining weight rapidly. The onset of obesity was accompanied by convulsions of the flexor type, which continued up to within the month of death. For a time, at every urination he would close his eyes and fall forward in a convulsive seizure. The family

history showed no glandular trouble or diabetes. The eyes showed edema of the retina; the throat was negative. There was marked muscular dystrophy with profound facial cyanosis, diminutive external genitals, doubling of weight in the third year of life, low sugar tolerance and an ante-mortem temperature of 107½ degrees. Treatment consisted of extract of the whole pituitary gland in doses of 2 to 40 grains daily, without benefit. Thyroid extract seemed to increase the number of the convulsions. X-ray plates of the skull showed a small sella turcica at the age of 23 months. An autopsy report and the histological report on various glands are included.

#### **A Case of Addison's Disease.**

Cabot (Mass. General Hospital Case Reports, 6, 1920, No. 18, Part 1) reports the case of a carpenter of 64 years whose family history was negative and whose health had been unusually good. At 24 he had measles; at 32, typhoid fever without sequelae, except constipation. For ten years he had suffered with hemorrhoids with a little bleeding. He had occasional headaches. His best weight before the attack of typhoid fever was 230 pounds. His usual weight was 190; at the time of entrance to hospital, he thought he had lost about 50 pounds during the previous two years.

His bowels have been irregular and constipated, especially for the past three or four years. Three years ago, for a period of two weeks, he was nauseated and he regurgitated all food within a few minutes after he had eaten. He was in bed on a diet. He recovered and again ate the same food as the rest of the family but less of it. He went back to his work. One year later he had a similar but much less severe attack lasting for a week. For five months he missed one or two days' work in a month, and then two months ago he gave up work entirely on account of general weakness. Since then, also, he has been unable to retain anything but a quart of milk a day, malted milk, spinach and an occasional cracker. There has been no pain.

Examination revealed that there was no



expansion of the left lung during respiration and the X-ray plate gave the appearance of an old tuberculous infection involving both lungs and the left pleura. Pulse, 92 to 129, was of poor volume and tension. Blood pressure: systolic 110, diastolic 80. Urine and stools negative. Blood: hemoglobin 70%, leucocytes 12,880 with 57% polynuclears, slight anisocytosis; Wassermann reaction negative.

The patient died on the third day after admission and autopsy revealed: tuberculosis of the adrenals by which they were transformed into fibrocalcereous masses; arteriosclerosis and dilatation of the heart; chronic pleuritis; absolute tuberculosis of the bronchial lymph nodes, and cholelithiasis.

### **SURGICAL ABSTRACTS.**

Edited by

Edgar H. Greene, M.D.

MEREDITH, FLORENCE L., Functional Menstrual Disturbances. *Surgery, Gynecology and Obstetrics*, 1920, XXXI, 4.

All forms of menstrual disturbances are less common than they used to be. Ten years ago a large number of college girls were examined by a physician who found that 75 per cent had dysmenorrhea quite regularly. At the present time, out of 749 college girls only 17 per cent were troubled at all by pain at the menstrual period, and only about half of these regularly.

The author attributes the improvement to, first, a change in the attitude in the minds of girls towards the menstrual function. They now consider it, and rightly, a normal function which should not cause pain, and should not be anticipated as a period of invalidism. Secondly, girls are indulging in a greater degree of activity which is not omitted during the period. This improves the pelvic circulation and the general muscle tone, especially of the lower abdomen. The ligamentous supports of the generative organs are strengthened by exercise and pelvic congestion overcome by eliminating or

making rarer the occurrence of chronic constipation.

The writer stresses the point of getting the patient in the right mental attitude—she deplores the fact that mothers and daughters refer to the menstrual period as “sickness.” She thinks that the mother, who forbids all kinds of baths during the period, and puts her foot down on the usual activity, such as dancing or hiking, demonstrates a superstitious idea. The author has never seen a girl harmed by any such procedure when taken straight through the period. The activity and bathing tend to not only eliminate the pain, but tend to shorten the duration of the flow.

A large number of girls troubled with menstrual pain were treated according to the foregoing plan, i. e., rectifying the mental condition, exercise and general hygiene. The bodily vigor was improved; increase in weight improved the position of the pelvic organs and relieved the symptoms. General improved circulation cured many. Discontinuing invalid habits was the chief factor in the improvement.

Of the girls examined, it was found that those who regularly omitted all activity during the period, suffered most. Dancing, hiking, tennis and gymnasium work was recommended and the results were highly gratifying. Chronic constipation was found to be a common cause of dysmenorrhea in many, some had the habit of taking cathartics before and during the period. They were advised to rid themselves of the constipation without the aid of cathartics. Regular habits, both in regard to ingestion and elimination, drinking plenty of water, eating foods with a chemical laxative effect, and those with a mechanical laxative effect to increase peristalsis and give the intestinal contents bulk, were advised. They were cautioned not to over-eat, but chew the food well—kneading the abdomen and general exercise and special exercise directed toward the lower abdomen. Abdominal muscles, in many cases were found to be sagging, causing poor position of the abdominal viscera and poor circulation. The most severe cases

were found among girls who sat at their desks constantly and spent their spare time reading and sewing and going to the theatre. Many girls when questioned, showed that they were unaware of the presence of abdominal muscles, thinking that epidermis and fat were the only covering for the abdomen.

The writer advocates proper exercise and where possible, under the guidance of a competent instructor—she outlines several excellent exercises, such as body bending and twisting; leg exercises, proper breathing, and correct walking, running, etc. Properly fitting wearing apparel is not overlooked.

The author concludes the article with the statement that “mental hygiene and general hygiene, including general and special exercise, seem to be the treatment of choice in most cases of menstrual disturbances in young girls and in many older women.” Many such cases are due to faulty muscular development within the power of the individual to correct.

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DRUMMOND, HAMILTON, A Sloughing Fibroid of Uterus Which Ruptured Through the Fundus into the Peritoneal Cavity, Causing General Peritonitis. Laparotomy—Complete Hysterectomy—the British Journal of Surgery, 1920, VIII, 29.

The author reports this case as an extremely rare complication of uterine fibroid.

E. S., age 36, a spare anemic woman, was admitted to Royal Victoria Infirmary on Oct. 15, 1919, with the following history:

While sitting quietly at home she was seized with severe abdominal pain—first in the stomach, later all over the bowels. She vomited shortly afterwards and immediately went to bed. Seven hours later she was admitted to hospital and she looked extremely ill. Temperature 101.5°, pulse 120, respirations shallow and rapid. General abdominal tenderness and well marked rigidity. The maximum tenderness was the whole of the lower abdomen. The cervix was normal with acute tenderness in fornices.

She had been married ten years; one healthy child, nine years old; a miscarriage

eight years ago. Menorrhagia for past two years, large quantities of blood or clots passing every fortnight.

Leaking pyosalpinx was suspected, but the sudden onset of pain suggested rupture of some other viscus.

Operation eight hours after sudden attack. The peritoneal cavity contained a large quantity of free turbid fluid. The omentum was found adherent to the fundus of the uterus and when separated, a hole the size of a lead pencil bore was seen entering the uterine cavity. The hole was enlarged and an offensive odor detected with escape of thick pus. The upper surface of a sloughing fibroid was seen and felt with the finger. The tumor was firmly fixed in the uterine cavity. Supravaginal hysterectomy was done, including the removal of the cervix, both tubes and ovaries. Gauze drainage in vagina for five days, and rubber tube in abdominal wound for forty eight hours. She returned home, completely recovered, three weeks after operation.

## CLINICS AND CASE REPORTS.

Edited by

C. E. Waits, M.D.

Sufficient space has been assigned to this department for the publication in each issue of the Journal, of several case reports and clinics. We shall be glad to have reports of interesting cases and clinics from every section of the state and urge the full co-operation of the profession in making this an attractive part of the Journal. Mail all data for this department to Dr. Charles E. Waits, 714 Hurt Building, Atlanta, Ga.

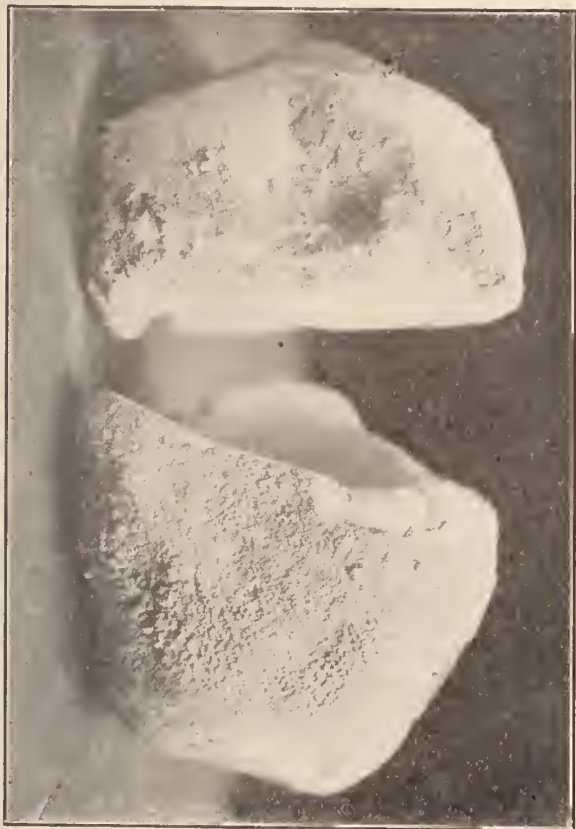
### Two Calculi of Unusual Size from the Bladder and Urethra.

W. L. Champion, M. D., F. A. C. S., and  
A. F. Caldwell, M. D., Atlanta, Ga.

On account of the unusual size of the stones, we report the following cases. The first was a man, eighty years of age, very feeble and whose mental condition was such that we could not obtain a clear history as to the length of time he had suffered from the bladder condition for which he was seeking relief. Figure 1 shows the calculus removed in this case. The stone is phosphatic, its weight, one-half pound, it is eight and a



half inches in circumference and three and one-eighth inches in diameter. As here shown, it appears to be two stones, but at the time the bladder was opened these stones were covered completely with layers of phosphatic material and was one solid mass. On account of it being adherent to the bladder wall it was difficult to free and deliver it through the supra-pubic opening, therefore it was broken into several pieces. The operation was done under spinal anesthesia. The



Case 1, Fig. 1. Phosphatic Calculus Removed from bladder, (Actual Size).

supra-pubic opening closed in four weeks and the patient was able to return to his home.

The second case was a male, age twenty-seven, complaining of constant pain, straining and frequent urination which covered a period of seven years. All attempts to pass a catheter or small gum instruments failed. A filiform was passed into the bladder and a Gouley's instrument threaded over the filiform and the bladder emptied.

Combined external and internal urethrotomy was advised. After cutting down on the guide and severing the stricture, the point of the knife came in contact with a hard substance which proved to be the stone here shown in Figure 2. It is phosphatic, weighs 150 grains, is one and three-quarter inches in circumference and two inches in length. It was lying in the prostatic urethra.

313-14-15 Grant Building, Atlanta, Ga.



Case 2, Fig. 1. Calculus Removed from Prostatic Urethra (Actual Size).

### THE MEDICAL INTERPRETER.

A Review by Arch Elkin, M.D., Atlanta, Ga.

It is quite impossible to compute the value to the medical profession of a standard clearing house of medical literature. There is so much that is good and of definite value and so much that is worthless that a system which culls out the contributions of merit and by careful arrangement offers concisely these articles for ready reference should be received with enthusiasm.

The Medical Interpreter, edited by Doctor Albert Allemann, of Washington, D. C., and a corps of Southern Physicians, is attempting to do just that, and its first volume recently published seems to vouchsafe the opinion of its staff that we will now have as a continuous addition to our medical studies a system full worthy of the term "standard clearing house." The idea employed by the Medical Interpreter is entirely new and unique. It is one that should appeal to every busy practitioner and to every man engaged in a special line of work. If succeeding volumes compare favorably with the one just issued, we believe it will become a ready reference of every medical library. The point which particularly attracts atten-



tion is the fact that no original work is accepted. Original work, whether published in a medical journal or monographed, is carefully selected and then abstracted by an associate editor known by his own endeavor to be conversant with that particular study. In turn this is edited by the editor-in-chief. By such a system, the published volume furnishes briefly all of the contributions deserving of notice. This system renders a two-fold service. It saves the busy doctor from reading all of the worthless literature, and well arranges for him that which is of value, and in addition it gives the stamp of approval to good work. Many times, original endeavor worthy of the name suffers either from the enthusiasm of the worker, or from apathy due to zeal and attachment to professional service. Such a condition has long existed in the South. Few Southern men have been writers. There is no gainsaying the fact that the South has produced many eminent physicians and real thinkers. Men who knew how to think and how to study, but there has been a dearth of writing. This work opens up the gate-way to Southern writers. It is essentially a southern publication as its list of collaborators will show, and the fact that some of them are unknown as writers does not detract at all from the work. It is entirely probable that it enhances the value of the collaboration. They can now put into print the things they know from experience and be a good judge of that which is good.

The arrangement of the articles is attractive. Without index, they come alphabetically. The print is excellent and the binding as good as the average.

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### NEWS ITEMS.

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Dr. H. D. Allen, Jr., has been elected Commissioner of Health of Baldwin County.

Marion County has recently adopted the Ellis Health Law. This makes the twenty-sixth county in the state to adopt this measure which gives them a full time Commissioner of Health.

The City of Griffin and Spalding County have recently adopted a \$10,000 budget with which to begin their city and county health work. No Commissioner of Health has yet been elected.

---

Dr. Dorothy Boeker has been appointed Assistant State Director of Child Hygiene for the State Board of Health. Dr. Boeker is a graduate of the Cornell University Medical School, a post graduate of the Long Island Hospital Medical School and, until her appointment to the Assistant State Directorship of Child Hygiene, she was connected with the Georgia Normal and Industrial College, Health Extension Department, Mill-edgeville, Georgia.

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An intensive educational campaign is being conducted throughout the larger cities of the state among the negroes by Dr. J. P. Bowdoin, Venereal Disease Control Officer. Drs. A. R. Barton and R. B. Stewart, colored physicians, are putting on moving pictures and giving lectures. Over seven thousand men were reached during the month of September.

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The State Board of Health had exhibits at several of the Fairs, especially the Southeastern Fair, Atlanta, and the Georgia State Fair, at Macon. Free moving pictures besides the stereomatograph were used. The Child Welfare Department conducted a booth.

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Among other matters of interest to the entire state, and to health officers in particular, is the new school for feeble-minded. The State has just been given possession of this property and as soon as the preliminary organization can be perfected and the necessary changes made, the school will be opened. This can only be done in a small way, as no provision was made for maintaining the school.

---

A conference of County Health Officers, together with the State and Federal Health Officials was held at Augusta, Georgia, on the 7th and 8th of October. At this meet-

ing the program for Child Welfare was discussed. A modern baby health center was exhibited by Drs. Devilbiss and Boeker. Surgeon L. L. Lumsden spoke to the conference on the subject of "Soil Pollution Diseases," stressing the importance of better sanitary conveniences for rural communities. Other subjects were discussed by Drs. Abererombie, Bowdoin, Haygood, Prof. Faulkner and Mr. Woodfall. While in Augusta the health officers inspected the new department of Public Health which has just been organized by the University Medical School. Dr. C. C. Applewhite is in charge of this department.

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At the semi-annual meeting of the State Board of Health the title of the Secretary of the State Board of Health was changed to Commissioner of Health.

Dr. J. P. Bowdoin was elected Deputy Commissioner of Health.

---

Dr. Charles H. Watt, formerly of Augusta, has located at Thomasville, Ga.

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The exercises for the unveiling of the corner stone of the New Georgia Baptist Nurses' Home were held Sunday afternoon, October 24th. It is expected that this home will be completed January 1, 1921.

---

Dr. Seale Harris, Birmingham, Ala., announces the opening of his Dietetic Institute and Private Infirmary for the diagnosis and dietetic and medical treatment of diseases of the stomach and intestines and of nutrition.

---

Dr. Milton Thomas Edgerton, Jr., announces the opening of his office at 1020 Candler Bldg., Atlanta, Ga. His practice will be limited to diseases of the Eye, Ear, Nose and Throat.

---

The Eleventh District Medical Society held its twentieth semi-annual meeting at

Waycross on Tuesday, November the ninth. There was an excellent attendance and a good program was carried out.

---

The Third District Medical Association will hold its twenty-seventh semi-annual session at Fitzgerald on Wednesday, November the twenty-fourth. A most excellent program has been arranged by the Secretary, Dr. Charles A. Greer, of Oglethorpe.

---

Dr. M. M. McCord, of Rome, Secretary of the Seventh District Medical Society, announces the approaching meeting of the society in Rome on Wednesday, December the first. A large attendance is especially desired at this meeting on account of making preparations for the meeting of the Medical Association of Georgia in Rome next May.

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#### A PARAGRAPH FROM POLLY DIPSIAS.

Those of us who understand that the farmer plants early amber cane because it matures rapidly and enables him to begin feeding his stock on this crop early in July can appreciate the following story:

The doctor was called and found, in the throes of labor, a colored woman who had been married only six months. When the husky Sinegambian made its advent and began to squall lustily, the paternal grandmother immediately examined the scrotum for Cancasson imprints, and the finger nails to see if there had been any tampering with the time lock. Being satisfied with the first investigation, but not with the latter, she began to upbraid her daughter-in-law most fearfully. The doctor not being needed in this performance gathered up his belongings and walked out to his car followed by the husband and father. The negro in an apologetic way said, "Doctor" could I ax you a question bout dat chile?" The doctor said, "Why certainly, Bill, what is it?" "Couldn't dat baby be one er dese here ambers?"

## LAURENCE EVERHART

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### ORIGINAL ARTICLES

#### REPORT OF CASES.\*

Frank K. Boland, M.D., Atlanta, Ga.

1. Traumatic Rupture of the Bladder Through the Rectum.
2. Round Worms in the Appendix.

1. Rupture of the Bladder. An eighteen year old boy was attempting to balance a long curtain pole on the ground and climb it. The pole was made of yellow pine, smoothly varnished, and an inch in diameter. When the boy had ascended about three feet the pole broke and the actor came down heavily on the sharp point of the stick below. The young man stated that the stick entered his rectum for a distance of "two feet," which proved to be not a great exaggeration. He pulled it out and ran up stairs and lay down on a bed. When seen two hours later he had been given morphia and was fairly comfortable. There was no nausea and no signs of shock. The lower half of the abdomen was intensely rigid. Inspection of the anus showed not the slightest bruise or abrasion. Digital examination of the rectum revealed an opening in the upper rectal wall about three inches above the sphincter.

The patient complained of no bladder discomfort and had passed no urine. Catheterization withdrew three ounces of fairly bloody urine. Under ether anesthesia, four hours after the accident, the abdomen was opened in the lower middle line. The peritoneal cavity was filled with urine. The upper wall

of the bladder showed an opening an inch in diameter. A finger introduced into the bladder showed another similar opening through the vesico-rectal septum. No other tissues were damaged. Evidently the bladder was full at the time of the injury and received the full brunt of the impact of the sharp stick. In this way the intestines were protected. If the stick had penetrated an inch further it would have perforated the abdominal wall.

With the aid of an assistant's finger in the rectum the vesico-rectal wall was pushed up and sutured with plain catgut. A retention catheter was introduced in the bladder through the urethra, and the opening in the upper bladder wall was similarly sutured. The peritoneal cavity was cleared of urine as completely as possible by a suction apparatus, and the abdominal wall was closed with Penrose drainage.

The catheter drained very well for a few days, and then most of the urine began to come through the suprapubic wound and through the rectum. Feces also passed through the suprapubic wound and through the catheter. On the fifth day the catheter was removed and the patient was allowed to pass urine normally. His bowels were also emptied for the first time, on this day, by an oil and glycerine enema. By the repetition of this enema, and the administration of mineral oil by mouth, the bowels were kept open satisfactorily. Bowel movements did not seem to increase the amount of fecal matter which passed through the bladder. Apparently the internal end of the retention catheter must have penetrated the vesico-rectal opening, since the amount of fecal matter from the bladder decreased very much as soon as the catheter was removed.

The patient's condition improved steadily

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



Traumatic Rupture of the Bladder through the Rectum. The rectum and bladder are shown as if fully distended. This was probably the condition of the bladder when struck by the sharp point of the broken curtain rod.

and by the end of a month he was able to go home, with both openings closed. At the present time, four months after the accident, he is able to resume his former occupation. The only after-effect is a bladder of somewhat diminished capacity, due to the two large scars. This condition, however, has improved materially since it was first noticed. The remarkable features of the case were the complete absence of signs of shock and of peritonitis, and the fact that the curtain pole entered the rectum without leaving any trace on the anus. A well-anointed bougie could not have done it with greater precision.

2. Round Worms in the Appendix. Cases of *ascaris lumbricoides* found in various organs outside of the intestinal tract are not rare. They have been found in the liver, the pancreas, the tonsil, the Eustachian tube, the appendix and other places. The condi-

tions under which the parasites now being reported were discovered, however, were unusual. A twelve year old boy was suffering from an attack of acute appendicitis, with typical symptoms. A large mass had formed in the right iliac region, and abscess was diagnosed.

Upon opening the peritoneum a smooth white object was seen. This proved to be *ascaris lumbricoides*, about eight inches in length, and still alive. Three other such worms were found, varying in length from six to ten inches. They were coiled in a mass around a suppurating, ruptured appendix which was free from adhesions, and was the most perfectly walled-off appendix ever seen by the writer. No intestines came into view during the operation. The patient had been sick about forty-eight hours at this time, hardly long enough for the formation



of such a protective barrier. What part, if any, the parasites played in the process, or in the liberation of the appendix from all adhesions, cannot be stated.

The rupture in the appendix was near the base. Its edges seemed to have been smoothed by the worms in their outward passage. It is not presumed that the parasites were etiological factors in the cause of the disease. It is well-known that they are prone to migrate through small openings, the Eustachian tube, for instance. The boy's recovery was normal. He has passed no worms since the operation, but passed one the night before the operation per rectum.

Since reporting this case Dr. C. H. Willis, of Barnesville, has told the writer of an appendix he removed recently in which the entire lumen was occupied by one ascaris lumbricoides.

#### DISCUSSION ON THE PAPER OF DR. FRANK K. BOLAND.

*Dr. W. A. Selman, Atlanta.*—I want to discuss both of these cases very briefly. In the first place, I had the pleasure of being an assistant in the first case and was interested in it.

In a gall-bladder case two or three years ago in which I was operating at the Wesley Memorial Hospital, Dr. Jones assisting me, after removing the gall-stones from the gall-bladder, there were two or three stones in the common duct. We slit the common duct, removed the stones, and as we removed the last one there was a peculiar looking structure in the common duct. Dr. Jones caught it with hemostat, pulled it out, and it was about the size of these worms in the common duct of the gall-bladder. A peculiar thing in that case was the night before the operation the patient screamed out in the night with intense pain, and it was supposed in the light of subsequent events to have been due to the worm trying to pass these impacted stones in the common duct.

*Dr. E. Bates Block, Atlanta.*—I shall not make any attempt to discuss the psychology of the ascaris lumbricoides, but they show a peculiar tendency to crawl into unique places. In one instance a child swallowed a lot of beads with holes in them, and subsequently many ascarides were passed showing constrictions around the body where they had crawled into the beads, and many of the bead were passed with the worms protruding through the opening. This migratory tendency of the ascaris lumbricoides is well known; it not only invades the vermiform appendix, the common bile duct, but it has been found in the lacrimal duct, and in the antrum of High-

more. It also possesses not only the power of migrating into passages which are open, but it has actually traversed the intestinal wall. It is still a mooted question as to whether perforations of the intestinal wall take place from ulcers or abrasions which are existing in the intestinal wall, or whether they have the power to pass through the intact intestinal wall. At any rate, they have been found very commonly in the vermiform appendix, not only the ascaris lumbricoides, but ascaris vermicularis, and Metchnikoff was responsible for the statement, namely, that if he were to have his choice in the treatment of appendicitis by operation or treatment with a vermifuge, he would prefer the latter. This is a strong statement coming from a man of his intellectual caliber.

In the early days of appendicitis there were numerous instances of worms in the vermiform appendix. These worms were so prevalent in the appendix that a great many men regarded them as the chief cause of appendicitis. There are still some practitioners who have not departed from this view. They believe that the appendix is invaded by worms that cause an inflammation. Personally, I do not hold this view, but I simply quote it as one of the prominent features in the etiological discussions on appendicitis.

*Dr. Frank K. Boland, Atlanta, (closing the discussion.)*

I have only to add in regard to what Dr. Block said about the beads, the man who reported that case suggested that he might treat the worms by feeding the child these beads and get the worms in that way. (Laughter.)

#### THE IMPORTANCE OF DETERMINING THE CAUSAL FACTORS IN MENTAL DISEASES.\*

By James N. Brawner, M.D., Atlanta, Ga.

When the average physician sees a patient presenting mental symptoms, he usually states that he knows very little about mental diseases and less about their treatment. This is due to the fact that few physicians have occasion to study in detail the physiology of the brain, and have forgotten most of the psychology which they learned in their student days. Then, mental diseases have always been described in terms that have little or no meaning to any one except a well trained psychiatrist, and physicians naturally hesitate to burden their minds with the meaning of such words. In this paper I will describe as plainly as I can the nature of the determining factors in some of the most frequent mental troubles, and will give

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

you an idea as to how we arrive at a diagnosis.

There are many classifications of the diseases of the mind, all of which are more or less unsatisfactory; many of the classifications are extremely involved; others, striving for brevity, are really too simple to correspond with the diseases as we see them. To understand the nature of mental diseases it is necessary to remember that the healthy mind and the healthy brain go hand in hand, or as many say, a healthy mind is a product of a healthy brain; so, when the mind is unbalanced it simply means that the brain mechanisms are not functioning properly. This is a fact we must never lose sight of in the diagnosis of mental troubles.

The proper functioning of the brain depends upon an innumerable number of factors, and the most important point in diagnosis and treatment in an individual case is to determine what factor or factors are at the root of the brain trouble.

To illustrate this, I will give you an example among the drug psychoses. If a healthy man is given several doses of hyoscine, he becomes more or less confused and hallucinated; in other words, he sees and hears things, such as bugs, animals, or an imaginary enemy which do not exist. Of course, the mind of such a person while under the influence of the hyoscine is not right, due to the fact that the hyoscine attaches itself chemically to the cells in the cortex of the brain, interfering with the orderly flow of thought impulses. Hyoscine, like some other drugs and toxins seems to have a selective chemical affinity for these cells. In such a case, it is plain that the hyoscine prevents the man's brain from functioning properly. The important factor in the diagnosis in such a case is the **hyoscine**.

His hallucinations might be studied in great detail, and the trained psychologist might gain a comprehensive view of the man's past experiences by analyzing the content of his hallucinations, but practically, the study of the mental symptoms in such a case is unimportant, **except** in determining the nature of the cause of the trouble.

The above is an example of that group of cases known as "The Drug Psychoses." There are several drugs which when taken over a considerable period of time will cause mental disturbances and by the history of the case and by the study of the symptoms we get a clue as to the offending drug. The cure of such a patient is to remove the cause—the offending drug—and the patient rapidly recovers. In my experience, the drugs most frequently causing mental troubles are alcohol, chloral, hyoseyamus, cannabis indica, veronal, trional, morphine and rarely lead and arsenic.

It is the duty of the psychiatrist to know in detail the symptoms presented by intoxication from each one of these drugs, and after getting a history of the case, and taking into consideration the general condition of the patient, the treatment is quite simple.

The proper functioning of the brain is frequently disturbed by the invasion of the body by micro-organism. The germs may invade the cortex of the brain, as in paresis, chorea, rabies and the various forms of encephalitis, or they may invade the meninges, as in the various forms of meningitis, or they may invade other organs in the body forming toxins which act chemically on the cortex of the brain, thus causing indirectly mental disturbances. The chronic focal infections are more frequently the cause of mental diseases than is generally believed. Abscesses about the teeth, tonsillar infections, gall bladder infections, frequently by a slow process of intoxication cause mental breakdowns, which usually manifest themselves in confusional states. The acute infections, like influenza, are frequently followed by delirium and a condition of confusion. Frequently after the person has had an infectious disease he gets into an exhausted state, and during this period he may develop a psychosis. We thus have what is termed an Infection Exhaustive Psychosis, and of the acute cases this group includes a large per cent of those which we have to treat. It is plain that in the Infection Psychoses, it is important to determine the nature of the invading micro-organism and to determine the site of the infection. In focal infections about the teeth,

tonsils, gall bladder, ears or appendix, a radical operation may be necessary to remove the site of the offending micro-organisms. A culture from the blood may give positive results and give a clue as to the nature of the germs.

The spirochetes of syphilis may cause a mental breakdown by invading directly the brain cortex, the meninges, or more rarely the other tissues of the body. In the latter instances, it is probable that the spirochetes, through chemical action, produce certain auto-toxins in the tissues which, when absorbed into the blood act deleteriously on the cortical cells. In all of these cases, it is the duty of the psychiatrist to determine by a thorough examination the causal factor—the spirochete of syphilis. It is also important to see if there are any complicating diseases, such as chronic Bright's disease, alcoholism, etc. In other words, give the patient a thorough physical and mental examination to find out all the factors which have anything to do with his psychosis. After the causal factors have been determined, a scientific line of treatment can be prescribed.

In the auto-toxic group of mental disturbances, there are formed in the tissues certain substances which have a toxic action on the cortical cells and the resulting mental state is usually one of confusion which may pass into a stupor; or the patient may be maniacal, talkative and restless. There are frequently hallucinations and delusions. When such a patient is received it is most important to determine the nature of the auto-intoxication. In some cases, perhaps the toxins are absorbed from the intestinal canal. More frequently, defective kidney action is the cause, or it may be pellagrous, or else to faulty tissue metabolism, or it may be due to disturbances in some of the internal secretions. Some day, it will very probably be determined that the important factor in manie-depressive insanity is a type of auto-intoxication.

As you can plainly see the mental symptoms displayed in the auto-intoxication psychoses are not so important, except in

helping to determine the nature of the real cause of the trouble. To find out the causative factor and to cure this is the duty of the physician and when this is done, the patient's mental symptoms will recover.

So far, we have considered those mental disturbances which are caused by bodily diseases. I will now refer briefly to those conditions produced by the psychical experiences of the patient. To make this clear, it will probably be best to give an example. A married woman, age 32, with two children, broke down mentally the seventh year of her married life. So far as I could determine, her family history was exceedingly good. She gave a history of being fairly well all her life, but her husband stated that during her married life she had been rather cool towards him and would constantly seek excuses to be away from home. Sometimes, she would have to leave for Florida, on account of the health of the children; or she would visit her mother and stay several weeks or months at a time. Finally she became morose, suffered from insomnia, was given to day dreaming and became so ugly and disagreeable that she could not be kept at home; she went from hospital to hospital and the last I heard from her she was still in a sanatorium.

This woman had an emotional conflict, which after years of striving, she could not overcome and finally she broke under the strain. To onlookers she had nothing to worry about, but they did not know her innermost feelings. Examination showed that the real origin of the emotional conflict was the fact that she had married the man she did not love; she loved ardently another man. Her religious convictions and social conventions prevented her from gratifying her love instincts on the man she adored. She then repressed these emotional strivings and the result was a mental breakdown of the dementia precox type.

The above is an example of one of the many causes of dementia precox. In many cases of this common disease, internal secretory disturbances are at the root of this trouble; in other cases, the patient inherits



a peculiar mental makeup and is incapable of adapting himself or herself to the conventions of a complex society and the mental symptoms are the result of an effort to readjustment.

In the psychoneuroses, the causative factors are mainly two:

First, painful psychical experiences, especially in childhood.

Second, the hereditary makeup of the individual. In this group we place hysteria, the fears or phobias, abnormal emotional strivings, the compulsion neuroses, etc. It is not proper to place in this group the exhaustive states of the nervous system due to underfeeding, overwork, worry, etc. The latter conditions usually occur in middle life, while the psychoneuroses usually first occur at puberty or in the early twenties.

In dealing with the psychoneurotic, we must remember that his trouble is not physical, except in a very limited degree, but his trouble is largely due to mental experiences and to treat him properly, he must be treated through his mind. The different methods of treatment will not be gone into, but I wish to emphasize the fact that to cure these patients, it is necessary to re-educate them mentally, and to place them at a vocation to which they are adapted. It is necessary to bring about a mental readjustment to their physical and social environment.

In conclusion, I will state that every case of mental disease should have a complete examination, both mental and physical. The heart, lungs, blood vessels, blood and urine, as well as all the reflexes should be thoroughly examined. Obscure infections, especially syphilis, should be looked for.

After a thorough physical examination, the patient should be given a mental examination and in this, special attention should be paid to the past experiences of the patient and to his sociological and home environment. In some cases it is necessary to dig up the experiences of early childhood. After such an examination, the physician can usually come to a definite conclusion as to the real factors in the causation of the disease, and the treatment be carried out in a rational way.

## **SOME ESSENTIAL FACTORS IN INFANT FEEDING.\***

M. M. McCord, M.D., Rome, Ga.

When one remembers that approximately one fourth of all deaths occur in the first year of life, and that of these fully 60 per cent are due to gastro-intestinal disturbances, he begins to realize how very important the proper nutrition of the infant becomes. It is very likely that of the other 40 per cent of those young infants who die of other causes, many would be saved if gastro-intestinal complications could be avoided. When such appalling facts confront us, our duty as physicians spurs us to greater efforts to attain such knowledge as will help to save the little ones entrusted to our care.

### **Confidence and Co-operation.**

In the practice of no other branch of medicine is it so necessary that the physician in charge have the complete confidence and co-operation of the patient's attendants, since patience and care are the two things absolutely necessary if we wish to get the best results. We must cease to allow the mothers to think that diarrhoeas are the result of teething, and must show them that if such were true every child would have diarrhoea from the 6th to the 24th month. We must prove to them that each child is a law unto itself, and that because Mrs. A's baby who was fed on condensed milk, is apparently well that that in itself is no reason for believing that Mrs. B's baby will be the same. The successful combatting of infant mortality can only be brought about by the education of the mothers in the essential facts of the science of the nourishment of infants. During generations past we have had to struggle with unsolved theories, but the light of the present day is furnishing us with a sufficient amount of proved theories, so that we may advance in our work by dealing with facts, and at the same time educate the mothers on the foundation principles of infant feeding.

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

### Percentage Feeding.

For many years in this country as well as in Europe, pediatricists have been divided in their methods of infant feeding. One set of the leading teachers tell us that the percentage method is the only reliable scientific manner of properly feeding infants, while another set of men equally as prominent among the profession tell us that the percentage method is wholly impracticable and entirely too complicated to be used by the general practicing physician, to say nothing of the mother or nurse who necessarily has to practice the method in preparing the food for the baby. We, as students of these various teachers, are forced to the conclusion that in all probability both teachings are right and both are wrong in part concerning their various contentions.

In my limited observation of the percentage method of infant feeding it seems to my mind that we should familiarize ourselves with the underlying principles of such a method only as a guide in making practical application rather than conforming to the letter of a theory which is not considered practical. To do this it is absolutely necessary to understand the relative values of food and there is no better way of such an understanding than to be familiar with the percentages of fats, proteins, and carbohydrates, in any given food.

There is nothing wrong and nothing objectionable to the percentage method of feeding by the profession, except that it is too complicated for general use, yet no one will deny that a physician who understands thoroughly percentage feeding is better prepared to draw practical conclusions in preparing his various formulae than he would be without this knowledge.

By the old method, milk was modified quite as much as by modern methods, but with the fundamental difference that the physician had not the slightest conception of the composition of his mixtures, hence no check on his results. Any physician who pretends to feed scientifically should not shun the task of acquiring this knowledge any more than he should avoid the labor involved in grasp-

ing the technic of simple surgical procedure in order to become skilled in the practice of modern medicine.

### Proprietary Foods.

It is so much easier to send the patient to the drug-store for some proprietary food. It occasionally happens that such a food, even without any consideration of its food value, gives assurance of meeting the needs of the baby. Some babies could get along on anything. It is the difficult feeding cases which usually fall into the hands of a physician, for most mothers usually try out the proprietary foods before calling out assistance from the physician.

Proprietary foods are made very attractive not only to the laity but to the profession. Every physician usually has every available space filled with samples of some patent food which has been sent him. If we do not consider the food value of any proprietary preparation and furthermore give no consideration to the requirements of any special infant, why not use these foods, for most of the makers have already printed the directions on the package, just how it is to be used, therefore, we can feed babies with proprietary foods without any knowledge of infant feeding. We have all probably been guilty at times of using these foods. The foods are all right and sometimes may be just what a certain baby requires, but before we endorse the use of any of them we should know the baby as well as the food. Some babies have a high tolerance for carbohydrates and a low tolerance for proteins. Such a baby would do well for a while at least on some of the commercial products.

The fact that most of the proprietary foods have a very high carbohydrate content and a low percentage of proteins makes them undesirable foods for use over long periods of time. The great majority of rickets seen in children usually are found in those who have been fed on proprietary foods. Many of these foods can be properly modified with fresh milk so as to make their use advisable, but the requirements of the baby must first

be known before any modification would be scientific or practical.

### Faulty Methods.

In many of my cases I find that it is not always the faulty food but the faulty method of feeding. Many mothers have never been made to realize that babies must have regular nursing and feeding periods. The mother will say, "I feed it or let it nurse as often as it wants it." The best baby food known will often eventually cause a nutritional disturbance if no regard is paid to the feeding periods. The baby must have a sufficient lapse of time between the feedings in order for the food to properly digest. Feeding a baby before regular time to keep it from being fussy, is laying the foundation for a sick baby. Irregular feeding probably causes more serious trouble than any other error in infant feeding.

### Starvation.

If the real facts were known it probably could be established that more babies die from starvation than from over-feeding. The latter has its ill reward if continued for any length of time, yet there are countless numbers who literally starve to death. Food is our weapon of defense against disease, also food is our main weapon to use in overpowering disease. He who starves the little ones and then attempts to cure the disease with intestinal antiseptics, etc., is laying the foundation for disease to conquer the vital resistive powers of his patient. A baby needs a certain number of calories to keep up its equilibrium. A shortage of calories, of course, results in a gradual wasting. The question which should occupy every physician's attention when confronted with a nutritional disturbance in a baby is not, how can I dose this baby to get it well, but rather how can I feed it to get it well.

### Unbalanced Food.

An unbalanced nutrition to an infant will not only fail to give the desired results in the weight, but will also cause diarrhoea or constipation according to the mixture the child is getting. To better illustrate my point, I have two cases which I will report. Both were a disturbance of nutrition with

the same results of weight loss, while one baby was constipated, the other had diarrhoea.

### Case Number One.

Mrs. A. brought her baby from a neighboring state to be treated for what she termed a "mucous colitis." Baby two years of age, nursed the breast up to eighteen months. Fed it on condensed milk for several months. At first it seemed to be doing well. Finally it began to have diarrhoea, fever and to lose weight. The family physician gave the baby one dose of castor oil and irrigated its bowels daily and it continued to pass mucous. Other medicines were used but the baby continued to lose weight rapidly. Upon examination of the stools I found that the baby had a starchy indigestion. Upon examination of the diet I found that the physician had left it to the mother to give the baby just such food and at such intervals as she could get it to take, consequently the baby wanted food which was almost entirely of the starchy class, therefore, with the daily castor oil and irrigations and starchy food ad lib. the infant's digestion became more impaired from time to time and the weight decreased until at the age of two years it only weighed eighteen pounds. I discontinued castor oil, irrigations, and all starchy food. I put it on a milk modification of 1 per cent fat, 2 per cent protein, and 3 per cent sugar and gradually increased the sugar in the form of Meade's Dextri-Maltose No. 3 and also the fats as its digestion improved. The baby's weight at the end of the first week was 18½ pounds an increase of one half pound. The food was gradually increased in amount and strength, but was not allowed a feeding only every four hours through the day. Prior to the adjustment of the feeding it was restless all night and cried all day. Since it has been getting a modified milk it plays all day and sleeps from ten to twelve hours at night without awaking and is constantly gaining in weight. Bowels move from two to three times in every twenty-four hours without a laxative.

### Case Number Two.

Mrs. S. brings her baby from an adjoining



county because it has been sick for six weeks and continues to get weaker and to lose weight and will not take its food and is severely constipated. This baby is also two years of age. Has been given oil, ealomel, and podophyllin by the attending physieian in an effort to act on its liver and move the bowels. Baby was very much emaciated from lack of food. Upon examination a small amount of albumen was found in the urine, but otherwise it presented a plain case of marasmus. This baby was put on Dryco Brand Dry milk, which is nothing but the solids of fresh milk with a slight reduction in the fats. It was begun on fats 1 per cent, protein 1.3 per cent and sugar 6 per cent and the percentage was gradually raised as the child's digestive organs improved. At the beginning of the milk modification the baby weighed 17 pounds. At the end of the first week, the baby weighed 18 pounds, an increase of one pound in a week. The milk was made full strength, fresh beef juice, zwiebaek, baked irish potatoe, macaroni, boiled custard, prune juice, etc., were added to the diet and the increase in weight continued from six to twelve ounces a week. No purgative or laxative was given as the baby had from two to three normal stools a day.

When we have diarrhoea in babies we know that it is a food disturbance, therefore, when we have constipation in babies who are not gaining in weight, why not look well to the food? The weight curve is a valuable guide and is a fine check to be used in treating nutritional disturbances, for when there is a constant substantial gain in weight even though the stools look a little bad at times or the child a little fretful, we should not be alarmed, for the increase in weight demonstrates to us that the child is assimilating its food.

### Change of Climate.

There are babies who seem to resist all the efforts of any physician for prompt results, especially during the summer months. They have made some improvement but only so far and their development seems to want to hold on at one place. For such babies I have observed that much improvement is de-

rived from giving the baby a change in climate. If in the flat woods or level lands take it to the hills or mountains. If in the hills and mountains take it to the seashore. Give it a constant outdoor life through the day and a well ventilated room at night. There is usually a marked improvement in an adult's digestive organs to change climate. Whether there is a psychic effect or not we do not know, but the same treatment should help the baby if feeding schedule is not overlooked or neglected.

### Summary.

1. Confidence and co-operation of the mother.
2. A working knowledge of percentage feeding.
3. Proprietary foods.
4. Faulty methods of feeding.
5. Starvation.
6. Unbalanced food.
7. Reports of two cases.
8. Change of climate or environment.

### DISCUSSION OF DR. M. M. McCORD'S PAPER.

*Dr. W. A. Mulherin.*—Dr McCord has well brought out many essential facts in infant feeding. While he wisely advises simplicity in infant feeding, I think it only fair to state that percentage feeding, when properly done, is very scientific, and an excellent way of feeding a baby. It is true that it is a little more difficult way of feeding, but results are very gratifying in many instances.

The essayist has brought out a very practical and important point, in mentioning that a baby can at times develop an intolerance for cow's milk, or any of its ingredients, and therefore it is occasionally wise to, temporarily, feed the patient on some carbohydrate food. This temporary feeding of exclusive carbohydrate food should not, however, be continued longer than is necessary to overcome the existing intolerance for cow's milk. It is just at this point, difficult feeding cases, where brains are required, as in every other field of medicine, so as not to kill our baby with theory.

It should be remembered that it is the absence of such essential ingredients as fats and proteins, in proprietary preparations, that makes permanent feeding with these foods a bad proposition; and this is just the reason why it is a good temporary food when a child develops an intolerance to the fats and proteins in cow's milk, because these ingredients are absent.

The boiling of milk from April to October, inclusive, I believe to be very important. The boiling of milk renders it more digestible, and safe-guards the baby from many infections of the bowels. I believe the more general practice of boiling milk, in the south in the last few years, answers the question of Dr. Clark, why there was less infectious diarrhea in Macon and other southern cities last year. The harmful results of boiling milk have been very much exaggerated, I think, in teaching in-

fant feeding. There is less danger from scurvy, especially when the specific orange juice is given in conjunction with our milk feeding, than exists when giving the babies uncooked milk during the summer months.

Again, the serious mistake of mothers nursing their babies too long at the breast, with no help from artificial feeding, should be stressed. We have all had mothers tell us that they must nurse their babies until the stomach and eye teeth had erupted, and by so doing have allowed big, handsome babies to lose in weight, muscles become flabby, and a decided anemia make its appearance.

In my experience some mothers need the help of one, or more, artificial feeding, at about six or eight months; others at 10 months. I believe it very important to have mothers weigh their babies every week. When scales show that the baby has stopped gaining for about two weeks, without any apparent reason, it is necessary to put on the artificial feeding. If the baby begins to lose weight for some two or three weeks, it is imperative that the mother receive some assistance by means of artificial feeding.

There is one other point I wish to call attention to, and that is indigestion, or dyspepsia, from too low feeding of the baby. It occasionally happens that if too little nourishment is given the baby, it causes indigestion in the form of frequent loose, green colored stools. If the correct amount of the proper food is given in these cases, it corrects the trouble. The reduction of food in such cases seems to be a common, and oftentimes a disastrous, error.

## EPIDEMIC ENCEPHALITIS (ENCEPHALITIS LETHARGICA).\*

Lewis M. Gaines, M.D., Atlanta, Ga.

### Historical Note.

In 1917 there first appeared in Austria what appeared to be a new disease which was given the name of encephalitis lethargica. In 1918 the same disease appeared in France and England and in the fall of the same year cases appeared in the United States, first along the Atlantic Seaboard. By the spring of 1919 cases of this disease were observed in the middle West and by October 1919, it appeared on the Pacific Coast. At the present time the disease appears to be distributed throughout the entire United States as well as throughout the civilized world. As far as can be determined the disease has been present in Georgia since late in 1918 and at the present time is being seen in all parts of the South.

### Symptoms.

Few diseases present such a remarkable

variety of symptoms as does epidemic encephalitis. This depends upon the varying areas in the nervous system which are affected.

For descriptive purposes, following the suggestion of Hunt, three types may be recognized:

1st (type 1) Cases with gradual onset.

2nd (type 2) Cases with sudden onset.

3rd (type 3) Mild cases.

### Type 1.

In this group the most prominent symptoms at onset are malaise, coryza, headaches and sleepiness. After one or two weeks cranial nerve paralyzes appear to be described below. Not infrequently peripheral nerve disturbances are seen, especially radiculitis giving to severe pains, neuritic in character in various parts of the body. Often insomnia is a marked feature at the beginning of the disease and later may give way to the characteristic lethargy. Fever is usually present in this type but is slight, may last only a few days or a week, or may be absent.

### Type 2.

In this type I place cases with rapid onset like that of an acute infection. There is frequently nausea, vomiting and fever, 102 or 103 and even higher. Delirium often occurs and occasional convulsions, as in one of my cases. Very soon paralysis appears, especially of the cranial nerves. The delirium may give place to a somnolent or lethargic state or the patient may fall into coma. The sphincters frequently become incontinent and catheterization may be necessary. These are the stormy cases.

### Type 3.

Mild cases often present diagnostic puzzles. There is listlessness, mental inertia, a general feeling of weakness associated frequently with some cranial nerve paralysis, especially referred to the eye, such as ptosis or diplopia. These cases are essentially chronic and ambulatory.

Symptoms in any type demand special description.

1st. Somnolence.

This is an abnormal mental state which is present in a large percentage of the cases

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but by no means all. Alexander and Allen in an analysis of 100 cases found it present in 86 per cent. Other observers have placed it very much lower. A patient in this condition lies in bed with closed eyes, taking no apparent interest in his surroundings and with a mask like expression. He can be aroused and slowly answers questions correctly, though with some difficulty. He then immediately falls back into apparent sleep. In some cases patients present this condition during the day and are restless and wakeful at night.

#### 2nd, Paralyses.

##### (a) Ocular Nerves.

The 3rd, 4th, 5th and 6th nerves are particularly liable. Diplopia is present in probably 1/3 of the cases at some time and very frequently is the first symptom. Ptosis and strabismus are frequently observed. Ptosis is unilateral or bilateral.

##### (b) 7th Nerve.

The facial nerve is not infrequently affected. In the series of 100 cases above referred to 31 exhibited unilateral or bilateral paralysis.

(c) Paralysis of the tongue, lip and muscles of swallowing suggesting the bulbar syndrome and indicating an invasion of the medulla is frequent. In this connection paralysis of the cardiac and respiratory centers may ensue, causing sudden death. There is frequently noted a tendency of the paralysis to recur after improvement.

#### 3rd, Sensory Disturbances.

##### (a) Pain.

Pain in various parts of the body is frequently present and may be the first symptom. In one case intense pain in both arms was the first indication of trouble. In another, trifacial neuralgia was the first symptom. In a case which occurred in New York City the patient was thought to have gastric ulcer and was operated upon. In this case the pain was a root pain referred to the region of the stomach. In my own cases pain has been present in many of them.

##### (b) Paresthesias.

Many of the patients complain of abnormal sensations, such as, tingling, numbness and

feeling of pressure suggesting peripheral nerve involvement.

#### 4th, Fever and Pulse Rate.

The majority of cases have an elevation of temperature. Except in the cases with sudden onset the fever ranges from 99 to 102. It may be present for only a few days or it may persist with variation for several weeks. The pulse rate is usually increased varying from 90 to 140 and in one of my cases to 160.

#### 5th, Changes in the General State.

The patients look sick in the majority of cases. A large proportion show a curious immobility of countenance quite similar to the classical "Parkinsonian Mask." There is a lack of emotional response and an indifference to surroundings which is striking. This description applies to the cases after they have fully developed. At the onset this type of facies does not appear.

#### 6th, Miscellaneous Symptoms and Signs.

A number of symptoms may now be mentioned which are present to a varying degree in different cases. Choreiform movements have been present in two of my cases and have been reported by others. In such cases the diagnosis of acute chorea is apt to be made. In one of my cases the choreiform movements were of extraordinary violence and lasted with no abatement for 4 days.

Delirium is frequently present and may either be violent or low and muttering in character.

A variety of mental symptoms are often observed, particularly in the mild cases. Walter Timme, of New York, has related to me a case presenting all the ear marks of paresis and which had persisted for many months, which proved to be one of epidemic encephalitis. Other cases including one of my own closely resembled dementia precox. It appears probable that various other types of mental disorders may occur in the mild chronic form of encephalitis.

Tremors are of quite frequent occurrence. In the majority of cases, they are coarse and jerking. Of especial interest is the rhythmic convulsive twitching of the muscles of the abdomen in the neighborhood of the 8th and 9th ribs, as described by Thomas F. Reilly



and confirmed by Peter Bassoe. I have not observed this type of tremor in my cases but others have observed it so frequently as to consider it a diagnostic sign.

Rigidity of muscles in various parts of the body, particularly in the limbs and neck are usually present. This rigidity is more of the lead pipe type variety and should not confuse with the rigidity observed in meningitis.

The speech is much disturbed in some of the cases, particular those with the bulbar symptoms. The words are indistinctly uttered and exceedingly monotonous. Often the speech is slow and halting even if distinct. Headache is apparently not a marked feature of the disease but present at the onset in probably a fourth of the cases.

There appears to be no uniformity in the reflex responses. In many cases they are normal, in some exaggerated, in some diminished or absent. Babinski's reflex is occasionally present but may later be absent in the same patient.

#### **Laboratory Findings.**

The laboratory has been of comparatively little help in this disease. The majority of cases show a very slight leucocytosis (10,000). The urine presents nothing characteristic. Cultures have been uniformly negative. Of more interest are the spinal fluid findings. A large proportion of cases show a slight increase in the cell count (10 to 30). A few have shown a decided increase (30 to 100), a few a large increase (over 100). In many cases the cell count has been normal. The globulin content is frequently slightly increased. In the severe cases it is quite common to find a considerable increase in pressure of the spinal fluid.

#### **Pathology.**

The pathological findings appear to be rather characteristic. The disease appears to select the mid-brain as its chief point of attack but there may be lesions in the cortex, the medulla or the peripheral nerves. To the naked eye there are few, if any changes, but on microscopical examination there is capillary engorgement, dilatation of blood vessels and perivascular infiltration. In the infiltrated tissue, particularly in the perivas-

cular spaces are small mononuclear cells, plasma cells and polyblasts. Probably the most characteristic thing are the hemorrhagic areas and the perivascular infiltration.

#### **Etiology.**

The disease occurs at any age in either sex. It has been seen in infants and in very old persons. The relation to influenza is not clear. Apparently a large proportion of cases have never had influenza. There is reason to suspect a specific virus. The disease is probably mildly contagious, analagous in this particular to poliomyelitis. In one of the New York Hospitals three internes and one nurse developed the disease.

#### **Course and Prognosis.**

The cases vary greatly in severity and duration. Many of the mild cases are not bedridden but symptoms persist for many months or for more than a year. Other cases are bedridden for weeks and recover very slowly. Some of the severe cases have recovered in a few weeks entirely. A certain proportion of the cases die. Mortality has been variously estimated from 10 to 40 per cent. The mode of death in some has been from involvement of the cardio-respiratory center, in others from various secondary complications. In two cases there were hemorrhages into the adrenals and death preceded by Addison's syndrome.

#### **Differential Diagnosis.**

The following conditions have been confused with the symptoms of encephalitis lethargica. Without attempting to detail the differentiation—the list is enumerated as follows:

- Brain tumor.
- Brain abscess.
- Meningitis (epidemic and tubercular).
- Cerebral spinal syphilis.
- Multiple sclerosis.
- Hysteria.
- Ptomaine poisoning.
- Paresis.
- Various psychoses.

#### **Treatment.**

There appears to be no uniformity in suggestions for treatment. Etiology of the disease is so obscure and the disease has been

studied for such a short period of time that treatment must be essentially empirical and symptomatic. I feel that spinal drainage is of distinct value and can certainly do no harm. Thorough elimination through bowels and kidneys and administration of large amounts of fluid is also of value. Stimulation may be necessary. For the delirium and choreiform movements hot and cold packs are useful. For the insomnia such hypnotics as adalin, veronal or dial may be recommended. Care should be observed in feeding cases with the bulbar syndrome to avoid aspiration pneumonia.

### Report of Cases.

#### Case 1.

A bookkeeper of 25 years on February 2nd, 1920, complained of pain in the cervical and occipital region with slight frontal headache and a feeling of weakness in the eyes. He also noted pain and soreness around the left ear. These symptoms persisted for 5 days but patient continued to go about. On February 7th headache was exaggerated and he felt confused and mentally clouded. There was no diplopia but some dimness of vision. A physician diagnosed toxic headache and gave calomel but no relief followed. Severe insomnia and mild delirium appeared. Seen on February 12th patient was sitting in a chair talking incoherently. He complained of severe pain in the right chest, right arm and in the frontal and occipital regions of the head. The pain was so severe as to require morphine. These pains continued and during the third week of the disease he developed a right facial paralysis. During this time the pulse was rapid (100 to 110) and there were at times slight fever. On about the 30th day the pain began to diminish and at the present time (May 1st) patient is able to perform part of his work but still suffers with weakness and has slight pain in various parts of the body previously affected. He is still somewhat depressed and complains that his vision is not clear. Unfortunately no spinal fluid was obtained.

#### Case 2.

A young married woman of 20 years was seen on March 22nd. She had been brought to

the hospital in a delirious condition. A very poor history was obtainable. She had been sick for several weeks, complaining of abdominal pain. Her physician had diagnosed appendicitis and advised operation. When seen she was in a semi-comatose state, breathing stertorously. The tongue was heavily coated and the breath exceedingly foul. There was an extensive peripheral neuritis. The patient cried out with pain when her limbs were moved. The neck was stiff. The Kernig's sign was absent. Later she remained lethargic with occasional periods of delirium. The pulse varied from 110 to 140. The temperature varied from 99 to 102. The spinal fluid examinations were as follows:

On 3-30-20—51 cells (lymphocytes) per cu. m. m.—very slight increase in globulins—W. R.—negative in all strengths.

On 3-19-20—14 cells (lymphocytes) per cu. m. m.—slight increase in globulins.

Her symptoms gradually improved and she was discharged convalescent on April 20th.

#### Case 3.

A boy of 18 years was seen with Dr. H. M. S. Adams on April 5th. Onset on April 1st with severe pain in right eye and right side of head, followed a few hours later by nausea and vomiting. The next day numbness and weakness of the left arm and left sided facial paralysis developed. On the night of April 2nd patient had a series of general convulsions which continued at frequent intervals until April 6th. In all there were 12 to 20 such convulsions, some of the convulsions were general, others confined to the facial muscles. In the interval between convulsions patient was lethargic. When seen on April 6th he was in the midst of a convulsion which lasted 30 minutes. Pulse was 160 and he was profoundly unconscious and sweating profusely. Babinski was absent. Knee jerks present. Kernig's sign present. No stiffness of the neck. The spinal fluid contained 15 cells per cu. mm. On April 9th patient had almost completely cleared. He seemed normal mentally, responded readily to questions and executed commands promptly. There was a slight weakness of the left side of the face. On May 4th this patient was seen at the office and stated that

he felt perfectly well except for occasional attacks of sharp pain in the right thigh and left hip. Physical examination was negative at this time except for a very slight weakness of the left facial muscles.

#### Case 4.

A young woman age 23 years was first seen on March 7th, at Georgia Baptist Hospital. After returning from a wedding on March 3rd patient was unable to sleep that night and was found to have a temperature of 99.4 and later next day developed choreiform movements. On March 5th she complained of severe pain in occipital and frontal regions and just anterior to the left ear. Mentality was normal but there was incessant talking. The choreiform movements continued in a violent fashion until the night of March 7th when they were controlled. Temperature ranged from 100 to 103  $\frac{4}{5}$  and pulse from 110 to 130. There was marked diplopia during the first ten days of illness. The eye grounds were normal. Leucocyte count on March 8th, was 17,000 with 87 per cent polymorphonuclears. Shortly after the cessation of the choreiform movements lethargy with double ptosis developed. Within a few days later dysphagia and weakness of the muscles of the throat and of the tongue appeared. There also developed a peculiar masked-like expression.

This patient is still confined to bed (May 4th) and exhibits immobility of the facial muscles, monotonous speech and difficulty in swallowing. The spinal fluid findings are as follows:

On 3-8—Cell count 15 per cu. m.m. (lymphocytes) slight increase in globulins.

On 4-4—Cell count 134 per cu. m.m. (lymphocytes) great increase in globulins.

#### Case 5.

A Pharmacist, age 31 years, became depressed on November 1st, 1919, and threatened to commit suicide. Following this he gradually became mentally confused and slept poorly. When seen on December 13th, he answered questions very slowly but correctly, appeared depressed and unable to fix his attention for any length of time. Physical examination was practically nega-

tive but spinal fluid showed 29 cells per cu. mm. with moderate increase in globulins and a negative Wassermann. During the four weeks that he was under observation this condition became more pronounced. He could not be induced to respond to questions or even to speak for days at a time, and he presented a lead pipe type of muscular rigidity. He was taken home by his father in a confused state of mind and showing mutism.

#### Case 6.

Farmer of 46 years was seen on April 6th, with Dr. Cochran, of Norcross, Ga. The onset was sudden with restlessness and delirium. Accompanying these symptoms were mild choreiform movements. Within a few days diplopia developed and there was persistent insomnia. When seen by me patient was in bed exhibited typical mild choreiform movements and was mentally confused and mildly delirious. It was impossible to obtain spinal fluid in this case. Temperature varied from 99 to 100 from 2 to 3 days of onset. A report from Dr. Cochran on May 3rd, states that patient is able to be up but still weak.

### Summary and Conclusions.

Epidemic encephalitis is a new disease which has recently appeared in the United States and is now prevalent in the State of Georgia. It occurs in both urban and rural communities in both sexes and at all ages. It is a disease affecting the nervous system and especially the central nervous system, particularly the basal ganglia. On account of the variety in location of lesions the symptoms are unusually varied and complex. In general the practitioner should suspect this disease in cases complaining of headache, ocular palsies and diplopia. If, in addition there is slight fever and insomnia followed by lethargy, a diagnosis of epidemic encephalitis should be made. If the spinal fluid shows an increase in cells with or without increased pressure and an excess of globulins the diagnosis is confirmed. In many atypical cases the diagnosis is difficult and may be only a surmise.

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**SIGNIFICANCE OF HEMOPTYSIS.\***

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So much has been written and said upon this question that it may seem unnecessary to discuss it further, but so often we do in tuberculosis work hear of hemoptysis being either disregarded by the patient or physician, or explained away as "blood from the throat and of no consequence," that I have decided to make it the subject of this paper. It is not my purpose to try to add anything new, but to emphasize the invariable seriousness of this symptom.

Blood appearing at the mouth and expectorated may have its origin in the mucus membrane of the mouth, nose, pharynx, larynx, oesophagus, stomach, or lungs and bronchi.

Hemoptysis having origin from the mouth and upper respiratory tract can usually be traced by careful examination of these parts. Hemorrhage from the oesophagus and stomach are often difficult of diagnosis—but more often than not are accompanied or preceded by other signs or previous symptoms which direct attention and suspicion to these structures. Blood from stomach ulcer or carcinoma is usually dark and clotted, may be acid in reaction due to the gastric HCL, there may be food particles mixed with the blood, "coffee ground stools," etc. Pure hematemesis is rare in gastric carcinoma, and carcinoma usually occurs later in life than does tuberculosis. Patient may cough even in gastric hemorrhage, from aspiration of the violently expelled blood, on the other hand, vomiting may be produced by profuse hemoptysis from severe irritation of coughing. Sputum expelled after the hemoptysis by the late coughing is almost never free from blood traces.

Hemorrhage from the lower respiratory tract may be more difficult to judge as to etiology, especially as it may come "as a thunder bolt from a clear sky," the sky being unclouded by previous symptoms referable to the respiratory system. When the origin is clearly lower respiratory tract, it

is a symptom of grave importance and when it is as though from a clear sky, even more grave, because it is usually due to tuberculosis.

Lord states in his "Diseases of Bronchi and Lungs;" "Hemorrhagic sputum may be seen in pneumonia complicating cardiac disease with broken compensation. When it occurs in other cases, tuberculosis should be suspected. Frank hemoptysis in pneumonia is rare." Stickler noted hemoptysis in only seven out of 16,711 cases of acute pneumonia, denotes terrific congestion but is not indicative of unfavorable results necessarily. Hemoptysis in broncho-pneumonia is still more rare. Bloody sputum of pulmonary infarction may closely resemble or be identical with that of lobar pneumonia, but it is usually darker red and less transparent, clotty and mixed with tenacious mucus and is seldom large in amount. Diagnosis of pulmonary infarction is difficult and is usually made post-mortem. Acute onset of hemorrhage without symptoms of T. B. occurs in embolism with endocardial symptoms and signs.

In chronic passive congestion the blood is usually in streaks or most frequently as frothy bloody mucus. If there occurs a pneumonia complicating, there may be frank hemoptysis as mentioned before. Usually the diagnosis can be made by careful examination of the heart and careful inquiry into the symptomatic history. Needless to say, there may be hemorrhage from embolic infarction in mitral disease.

In gangrene or abscess of the lung, or bronchiectasis one may see frank hemoptysis which may be severe and even fatal, when a large blood vessel is eroded—but in these cases the sputum is usually streaked or bloody, the bleeding is protracted and admixed with large amounts of foul-smelling, vile-looking pus, suddenly expectorated, expulsion often initiated by certain positions of the patient in bed. These characteristics will help to distinguish the condition underlying the hemorrhage. It is not to be forgotten, however, that the patient may also have tuberculosis, indeed tubercle bacillus

\*Read before the Ninth District Medical Society, Lawrenceville, Ga., September 15th, 1920.

seems in a considerable number of cases of abscess, gangrene and bronchiectasis to be the bacterial cause.

Aneurysm of aorta may give rise to the streaks of blood in the sputum as a consequence of pressure; if rupture of aneurysm into the trachea or bronchi occurs, obviously there may be a huge hemoptysis.

Malignant disease of the bronchi or lungs is rare as the cause of profuse hemoptysis.

Trauma, falls or blows upon the chest, aspiration of foreign bodies into the bronchi may give rise to hemoptysis. If there be injury to the chest without rib fracture followed by hemorrhage from mouth, look out for organic disease of the lungs.

Syphilis, actinomycosis and echinococcus are very rare causes of hemoptysis, syphilis less rare than the other two.

There is a form of epidemic hemoptysis in Japan and Formosa due to *paragonimus westermanii*, but that does not concern us here.

Hemophilia, purpura, scurvy, or leukemia may be cause, but usually diagnosis is evident from other symptoms, history, etc.

As to various menstruation as a cause of pulmonary hemoptysis, Lord feels that it is not a cause and thinks that the cases reported are not sufficiently authentic. Bonney is inclined to feel that it can cause pulmonary bleeding, and reports a case in point. Pick and Hecht say: "In those cases in which vicarious menstruation seems plausible, a beginning tuberculosis is usually latent producing a *loens minoris resistentiae*." Personally, I have never seen such a case. I have, however, seen several cases of women in which pulmonary hemoptyses seem to occur only at the catamenia. These were all frankly tuberculous. Vomiting of blood and blood spitting during pregnancy cannot be explained upon the *plethora gravidarum*, exact examination usually shows tubercular lungs or mitral lesion.

Pulmonary tuberculosis is the most frequent cause of hemoptysis, and hemoptysis seems to occur in sixty to seventy-five per cent of all cases, sometime during their course. Some authorities place the percentage higher—61 per cent my estimate.

Stickler's statistics as to hemoptysis in the Prussian Army are interesting, and have become classical, of 480 cases of hemoptysis either without known cause or following "colds," 221 were tuberculous, and 196 probably so. Of 379 cases of hemoptysis resulting from over-exertion in military maneuvers, gymnastics, blowing wind instruments, trauma and the like 282, or 74.4/10 per cent were tuberculous. Frequently in our own cases there is a history of blows or injury to the chest or excessive exertion immediately prior to the hemorrhage, but usually careful questioning as to previous history, served to show pre-existing symptoms of tuberculosis often overlooked by patients or forgotten because of mildness. Sorry I cannot give statistics as to the frequency of this in our cases.

When hemoptysis is the initial symptom out of a clear sky, tuberculosis should be the physician's first thought, particularly if history of slight cough or expectoration, or perhaps history of pleurisy years before can be elicited by close questioning. Osler states that "frank signs of tubercular lungs may not follow hemoptysis and the patient be in apparent good health with apparently sound lungs, indeed patient may go for years without further signs of pulmonary tuberculosis, but post-mortem shows sites of obsolete tuberculosis, the patient possibly dying of other disease," but the cases that do this are relatively few compared with those who do show signs to expert physical examination. Pottenger says "the spitting of blood should always be considered as tuberculosis, unless some other cause can be definitely proved." Cabot emphasizes the point that there is but one important cause of genuinely obscure hemoptysis in temperate climates, namely T. B. Subsequent fever is most suggestive. Minor of Asheville observes: "Blood spittings are with such few exceptions tuberculous in origin that only the very strongest evidence to the contrary should justify us in dismissing the diagnosis of tuberculosis, after such an hemoptysis, even if symptoms and signs are absent, for the history of these cases teaches that practically all of them sooner or later develop

evident symptoms of the disease, and it is far better to treat them all as tuberculous, even if the case is prevented from ever reaching the stage of symptoms rather than calm their fears by assuring them that it was 'just a broken vessel.' "

Recurrent hemoptyses of course make suspicion point all the more strongly to tuberculosis—the majority of our cases who have had hemoptysis have had more than one.

Causes of hemoptysis is pulmonary tuberculosis are most frequently over-exertion, excitement, worry and temper, and meteorological conditions, such as damp hot spells. Time and time again I have seen almost an epidemic of hemoptysis in Sanatoria at times when the barometer falls quickly and a storm is coming. Flink, Ravenel and Irwin believe that hemoptyses is usually due to acute pneumococcal infection superadded to the already existing tubercular infection. My own observation of sputum at these times makes me feel that perhaps there is some foundation for this theory, as I have not infrequently found the diplococci were numerous in sputum during these hemorrhage epidemics. My observation, however, is that these diplococci are more minute than are the usual pneumococci of pneumonia. Many authors explain early hemoptysis in T. B. as due to a state of hemophilia appearing early in the disease when the coagulation time of the blood is considerably prolonged and which may disappear later. I have already indicated that the catamenia may influence to a degree the incidence of hemoptysis in the female. Moderate altitude does not in my opinion increase tendency to hemorrhage.

Hemoptysis may occur in any period of life but is less common in the extremes of age. It may occur in the various stages of the diseases but theoretically it would seem to me less likely in the incipient stage on account of the pathology of the disease. A free hemoptysis nearly always to my mind indicates destruction of tissue, while infiltration or fibroid formation must permit only of seepage of streaks, in fibroid phthisis streaking may be very frequent and protracted. Blood may come from the pul-

monary vessels or the bronchial vessels, usually the former.

The onset of hemoptysis is usually sudden and without warning. Many patients, however, after their first hemorrhage tell of a salty taste in the mouth, then the expectoration of blood. Some will tell of a slight pain or a "tightness soreness" or a "burning ache" in some part of the chest and this occurs so frequently with us that I am coming more and more to consider with uneasiness any such complaint, this feeling is most frequently complained of in the upper front part of the chest, but the degree of the intensity of this pain has not seemed to me to be of any value whatever in forecasting the size of the subsequent hemoptysis. Oftentimes streaks of a small hemoptysis is the forerunner of a large and even fatal hemoptysis, and should not be lightly ignored.

Tubercular hemoptyses do not usually stop at once and sputum clear up but usually train off less and less or clots are expectorated and sputum gradually changes to brown then yellow during the course of three or more subsequent days. Large amounts of blood may be swallowed and vomited, swallowed blood may give rise to tarry or "coffee ground" stools. The color of blood expectorated from the lungs during a hemorrhage may be dark or light. It may be frothy or clotted and cannot always be distinguished from blood from gastric ulcer by color or consistency.

Small hemoptyses may or may not leave any bad effect upon the tubercular process so far as the disease itself is concerned. Some observers think that in a few cases there has followed some relief and even improvement of the lung process. In a very few isolated cases I myself have thought this to be true, but in so very few have I seen this occur that every hemoptysis whether large or small gives me much serious concern. In large hemoptyses I have seen nothing good and much bad result. Frequently pneumonia follows even small hemorrhages, not very rarely acute pulmonary or general miliary tuberculosis results. As to the prognosis for life in the hemorrhages some may be so large as to drown the patient in



his own blood, others kill by exsanguination, but death in the hemorrhage is relatively rare. If a physician sees a case in hemorrhage he can usually allay the patient's and relative's fears so far as the immediate prognosis goes, as fatal hemoptyses usually kill within a few minutes.

Please let me again emphasize most strongly that every hemorrhage appearing at the mouth should raise a question to our minds at once of pulmonary tuberculosis. Eliminate other causes first, if case seems obscure after every cause has been excluded, the hemoptysis is probably due to tuberculosis of the lungs, whether you find signs in the lungs or not.

### REMARKS ON TOXIC GOITRE.

#### THE DIAGNOSIS.\*

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That Goitre is prevalent in this locality, one needs only to stand upon a popular street corner on a summer day and observe the necks of the women passing, to be convinced. That Toxic Goitre has its percentage among these, is equally true and that many of these latter, especially in the milder form, remain unrecognized is a reflection against the ability or thoroughness, most likely the latter, of the profession.

Deviating somewhat from the usual paths of the Surgeon, I shall not in this paper discuss the operative technique or results but rather, the diagnosis.

In all the literature on Goitre, and volumes have been written, since it has attracted the attention of the profession and laity for thousands of years, but a small proportion is devoted to the discussion of the disease from the standpoint of its general symptoms, its effect on the entire body mechanism, rather, the four so-called cardinal symptoms are emphasized or some combination of them.

I wish, rather, to stress other symptoms, commonly classed as "minor," far more

general in type and yet equally as diagnostic when grouped and carefully considered as a combination of the four cardinal, indeed I trust the latter term will soon fall into disuse. We no longer await the flushed cheeks, the hectic temperature and the racking cough in the diagnosis of tuberculosis, nor the terminal cachexia in the diagnosis of cancer, so let us learn to recognize toxic goitre before the appearance of the "cardinal symptoms," at least, in an aggravated degree.

Any or all of the systems of the body may be affected, one more outspokenly than another. The inter-relationship of the ductless glands and the fact that disorders of one affect to a greater or less degree the others, is well recognized. Therefore, in the study of toxic goitre, a complete history and thorough examination are necessary to obtain accurate data upon which to base diagnosis, treatment and prognosis.

But a small proportion of cases show all of the "cardinal symptoms" from onset. Toxic goitre is insipid in onset and progress, the sudden outbursts of many symptoms and signs—into the perfectly classical case—may be precipitated by such as fright, shock, emotions, etc., but careful inquiry into the history, will, in the vast majority of these, reveal the gradual onset.

If we are to accomplish the most in this disease, it can only be by early recognition, long before the classical stage, and appropriate treatment.

To the teachings and writings of Dr. L. F. Barker, in particular, I am indebted for the outline as used in studying these cases. He divides the symptoms and signs thus: 1. struma, 2. signs due to heightened excitability of the vegetative nervous system, 3. certain signs depending upon secondary changes in the other endocrine glands, 4. symptoms indicating profound disturbances in metabolism, 5. various symptoms referable to interference with the functions of the cerebrum and, 6. a peculiar blood picture.

1. The struma or goitre varies from no apparent to marked enlargement, diffuse or confined to one lobe or isthmus or even areas in these. It may be smooth or granular and the consistence is usually increased. Owing

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

to the increased vascularity there may be pulsation, either visible, palpable or expansile, a thrill on palpation and murmurs heard over the poles. Frequently there is more or less tenderness on pressure.

2. The Vegetative Nervous System. Barker says "These are the principal symptoms of Graves' disease, and are those which most often call our attention to an abnormality of the thyroid gland. When the autonomic innervations are upset throughout the body, symptoms referable to the eyes, to the heart and blood vessels, to the skin, to the digestive organs, to the respiratory apparatus, and to the urogenital apparatus are met with. These various organs receive nerve impulses of two sorts, first, from the sympathetic system proper, and, second, from the cranio-sacral system, or so-called vagal system." Hence the explanation of the apparently conflicting findings in two typical cases.

To prevent repetition, the outline of these symptoms and signs will be incorporated in the report of Case I. But before doing so a brief comment will be made relative to the symptoms referable to disturbance of function in the other endocrine glands. This phase is too broad and too unsettled to go into details further than to say that it is believed that the thyroid and the pancreas mutually inhibit, so do the pancreas and the chromaffin system whereas the chromaffin system and the thyroid favor; the thymus and thyroid favor but their effects on the other endocrines are antagonistic.

Case I. This case illustrates the insipid onset and suddenly converted into an acute attack by a shock. Female, married, age 23. Family history negative. No goitres in family. Personal history, never any serious illness until the present. She has had several mild attacks of tonsillitis, none during the past year. She has never been pregnant. During the past year she has suffered from shortness of breath but it did not cause much inconvenience until recently. Has suffered from "indigestion" for the past five years, sour stomach, gaseous eructations, etc. Her weight has slowly increased during the last three years until she was heavier than in her

life just before onset of present illness. She has been quite constipated and had to take laxatives daily. Menses were normal until about ten months ago when the quantity began to lessen until at present only a trace is apparent. Because of this, she had a dilatation and curettage about six months ago, without benefit. There has never been any pain. Two months ago she witnessed a homicide and since, has been very nervous and unable to sleep. About six months ago she noticed that her skin was darkening and this has increased to a decided bronzing at the present. During the past few months her hair has been falling rapidly.

Present illness began twenty-three days ago with an acute onset at night, apparently "acute indigestion" with pain in the epigastrium, nausea and vomiting, a very fast heart and extreme nervousness and her eyes looked and felt as if they would "pop out of the head." Phobias, even psychoses have been pronounced, on several occasions she jumped out of bed and ran into the streets. The acuteness has gradually lessened but she is extremely weak and complains of pains and aches between the shoulders and in the eyeballs. She has lost 40 pounds in weight.

Examination. She is a very stout woman but apparently quite weak and fainty and requires help on the slightest exertion. Expression is that of extreme anxiety, indeed almost as of fear. She is crying because of fear about herself and throwing her arms about wildly begging for relief. Pulse rate 140.

The thyroid is barely perceptibly enlarged but quite firm, and a definite thrill and pulsation are apparent on palpation. There are no murmurs heard.

Eyes. There is a mild exophthalmus (marked at first), wide lid slits (Dalrymple), no dissociation between the movements of the eyeball and the upper lid (Von Graefe), no insufficiency of convergence (Mosbius), no infrequency or incompleteness of winking (Stelwag), glistening is increased, the lids are slightly swollen, no inequality of pupils, adrenalin mydriasis (Loewi) is present, epiphora is marked therefore no dry eyes, pigmentation of the lids (Jellinek) as well

as of the entire body is marked, tremor of the closed lids (Rosenbach), and subjective feeling of heat and pain in the eyeballs.

The heart and blood vessels. Heart rate is 140. Subjective palpitation is marked, there is moderate dilatation, the P. M. I. 1 cm. beyond the midclavicular line, there are no murmurs at apex or base. Pulsation of the carotids but not of the brachials is apparent. Blood pressure is 132—88 (usually low, occasionally very high), A pulsus irregularis respiratorius is present. Vasomotor anomalies are shown by an erythema especially of the neck and chest, dermographism and subjective feeling of heat. There is no apparent myocardial insufficiency.

The skin is thin delicate, soft and moist. Sweating is profuse. There is marked general pigmentation. The nails long and tapering.

Digestive. The saliva is markedly increased, flowing from the corners of her mouth. Constipation severe and never any diarrhoea.

Respiration shallow, rapid and subjective dyspnoea.

Urogenital. There is no hypertrophy of the breasts. A hypogenitalism is shown by the lessening of the menses during the past few months. A hypo-hypophysmus is suggested by the fact that she was extremely fat before the present illness. There is no general glandular enlargement, and no retrosternal dullness. She thinks the urine has been decreased. No glycosuria or polyuria.

Metabolic. The rapid loss of weight as mentioned, due probably to increase of all the metabolic processes. Temperature showed a daily range of one to one and a half degrees, probably a disturbance of the heat regulating mechanism. Even with the loss of 40 pounds she is still quite fleshy. The phosphorus or Calcium content of the stools were not studied.

Cerebral. Apprehensiveness and phobias were mentioned in the history, as was also the insomnia. The tremor of the fingers is quite marked and perfectly typical.

Blood showed a leukopenia of 4600. Polys 46 per cent, lymphocytes 50 per cent,

eosinophiles 1.6 per cent, basophiles 1.6 per cent, unclassified 1 per cent.

She was given preliminary treatment for about two weeks, when it seemed safe to operate—this consisted in a bilateral resection of the thyroid, removing approximately four fifths of the gland. Convalescence was uninterrupted and she has remained free from any of the former symptoms for a period of three years.

Case II. Female, single, age 26. Family history negative. No goitres.

Past history. She was very healthy as a child and fully developed at ten years of age (she lived in Central America). No serious illness until the present. Menses began at ten years, normal. She entered training school 7 years ago and graduated as a nurse three years later.

During the past six or seven years she has been more or less nervous, irritable, and could not sleep. Appetite variable and constipated as a rule. Vague digestive symptoms were present, sour stomach, flatulence, etc. The menses have lessened in quantity and become very painful. She has had periods of several months of relative comfort followed by a period when she was "all to pieces." Four years ago she had a dilatation and curettage because of the dysmenorrhoea but with no improvement. Three years ago she had an appendectomy, the digestive symptoms having been attributed to the appendix. The tonsils have been removed because of recurring attacks of tonsilitis. During the past summer she had an attack of tertian malaria which responded promptly to quinine.

About one year ago she noticed that her collars were a little tight but does not think there was any enlargement of the thyroid. There was also a mild sensation of choking. Neither has become any worse. Her pulse has varied at intervals from 90 to 120, never any higher. During the past three years there have been periods of several months during which her temperature would show a daily variation of two degrees. The energetic, general weakness and nervousness have been aggravating and of late she frequently, without any apparent cause, drops



things from her hands—dishes, etc. She first noticed an appreciable tremor of the fingers about three years ago and a year later, while reading to her patients, noticed a harshness and rasping quality to her voice. Her hair has fallen out to such an extent that she has three times had it cut. Loss of weight has also been marked, as much as 66 pounds in six months, during which time she felt so badly she could hardly keep going and indeed at times was forced to give up work. With improvement in general feelings, the weight would return to normal. Of late, attacks of nausea and vomiting without any sensation of indigestion have been appreciable. The breasts have been enlarging to such an extent as to be embarrassing. The menses have lessened for the past six months and become quite painful—duration at present is one day and very scanty. Cerebral symptoms are marked in that she is obsessed with vague fears and uneasiness and her disposition is so irritable that her mother termed her a "hell-cat."

Without going into a detailed report of the physical findings other than that in the table, several rather unusual features will be noted. While talking with her, one was

struck by the fact that she could literally "stare you out of existence"—due to the marked infrequency of winking. Checking this against the normal, it was found that there would be 10 to 14 winks between two of hers. The fact that the heart rate was low (80 to 90) is of interest and the blood pressure, usually low, was 150 systolic and 110 diastolic. Another interesting feature was a marked outgrowth of hair over the legs, axillae and pubes (approaching the masculine type) in the last few months, and the marked hypertrophy of the breasts. The blood showed 5500 leukocytes and the differential, polys 38 per cent, lymphocytes 57 per cent, eosinophiles 3 per cent and unclassified 2 per cent.

Bilateral resection of approximately four fifths of the thyroid resulted in cure and she has remained so three years. Her mother says that she was changed from a "hell-cat" to a lamb. As further test of her cure, she has married and passed through a pregnancy without any manifestation of symptoms.

Tabulating these symptoms of the Vegetative Nervous System according to which system is responsible for certain symptoms and signs, we find they may be illustrated thus:

	Sympathicotonic.	Vagotonic.	CASE I.		CASE II.	
			S.	V.	S.	V.
1. Exophthalmus. ....	Marked	Slight or absent	+	—	—	+
2. Dissociation between the movements of the eyeball and the upper lid (Von Graefe). ....	Negative	Positive	+	—	—	+
3. Insufficiency of convergence (Moebius). ....	Positive	Negative	—	+	+	—
4. Wide lid slits (Dalrymple). ....	Negative	Positive	—	+	+	—
5. Eye balls. ....	Dry	Moist	—	++	+	—
6. Glistening eyes. ....	Not increased	Epiphora	—	+	+	—
7. Adrenalin Mydriasis (Loewi). ....	Positive	Increased	+	—	+	—
8. Tachycardia. ....	Marked	Negative	+	—	+	—
9. Subjective palpitation. ....	Diminished	Slight or absent	140-160	—	—	80-100
10. Saliva. ....	Diminished	Marked	—	+	—	+
11. Skin. ....	Dry	Increased	—	+	+	—
12. Hair. ....	Rapid loss	Sweating profuse	—	+	—	+
13. Bowels. ....	Constipation	Diarrhoea or spastic constipation	+	—	+	—
14. Slight fever. ....	Positive		+	—	+	—
15. Blood—leukopenia usually. ....	Eosinopenia	Eosinophilia Lymphocytosis	—	W. B. C. 1600 Lym. 50% Eos. 1.6%	—	W. B. C. 5500 Lym. 57% Eos. 3%
16. Carbohydrate tolerance. ....	Lessened	Unlessened	—	+	—	+
17. Pulsus irregularis respiratorius. ....		Positive	—	+	—	+
18. Gastric hyperacidity. ....		Positive	—	+	—	+

From the above it is apparent that two types of findings may be had. An absolutely pure type is rarely found, but rather a predominance of symptoms of one system over the other and, another group in which the symptoms are more nearly equally divided and "in this group the mental symptoms are prone to be more severe than in the pure cases" (Baker). CASE I. With the marked exophthalmus, very rapid heart and well marked tremor presented three of the "cardinal" symptoms and was of course obviously diagnostic. Yet by tabulation there was a larger number of symptoms in the Vagotonic group but so equally divided as to class it rather as "mixed." CASE II. On the other hand, presented only one (tremor) of the cardinal symptoms as at all marked and a very low grade tachycardia. A study of the table will, however, show sufficient findings to make the diagnosis and to class the case as "mixed." The mental symptoms were quite marked in each case, as was brought out in the histories.

The confusion in toxic goitre is due to these variable findings but these are readily explained, as outlined above. Particularly confusing are the mild cases, with no symptoms well marked, or especially none of the "cardinal" and it is in this class that a careful history and examination will reveal sufficient data upon which to make the diagnosis. Naturally these are the cases most amenable to treatment and their progress prevented, if indeed, an outright cure is not obtained and in either instance lessen the number forced to some form of operative treatment.

Colloid goitres may of course assume toxic aspects, their development is as a rule fairly rapid, they are less amenable to medical treatment and therefore surgical interference should be early advised.

Certain tests have been described and in very mild cases may be necessary to clear up the diagnosis and in all, are interesting

from the standpoint of completeness. The use of small doses of thyroid extract and noting the aggravation of symptoms is not so much employed now as several years ago. The Goetsch epinephrin test, however, and the study of the basal metabolism have come into much more general use—the latter has been particularly interesting in that it has shown that the metabolism may be increased as much as 80 or 90 per cent.

### Conclusions.

1. That toxic goitre is frequently encountered in this part of the country tho, of course, not so prevalent as in some other localities where it is more or less endemic.

2. That we must learn to recognize the disease while it is yet mild and this is best done by a review of the entire body as outlined.

3. That many cases may then be cured or held in abeyance by appropriate treatment. One, however, must not be too optimistic over improvement since the "ups and downs" in the course of the disease are notorious—periods of relative freedom from symptoms alternating with periods of aggravation of symptoms. Not infrequently this latter may rapidly follow a period when the patient has felt at his or her best.

4. When medical treatment fails, prompt reference to the Surgeon should be made for operative treatment.

5. Operations in the early cases are less dangerous and the ultimate results are more satisfactory. Do not wait until the myocardium has undergone degeneration since even tho the hyperthyroidism might be cured, the damaged heart can not be restored.

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## THE TREATMENT OF CHRONIC OSTEOMYELITIS.\*

W. L. Thornton, M.D., Atlanta, Ga.

Thorough operation is essential for successful treatment of chronic osteomyelitis. All diseased bone must be removed. The bone should be carefully sculptured with sharp chisels so that the contour of the remaining bone surface is left smooth and free from depressions. The approach to the diseased area should be made where the line of incision will permit a free exposure of the bone without encroaching upon large vessels and nerves. The tourniquet makes it possible to operate without much loss of blood and to differentiate between healthy and diseased bone.

Upon completion of the operation the wound may be sponged with Dakin's solution, iodine or alcohol, and packed with gauze. Twenty-four hours later the first dressing is made, preferably under nitrous oxide analgesia, as the first dressing would be quite painful. Each subsequent dressing becomes less painful until about the fifth dressing when there should be no discomfort.

Following the first dressing the Carrell-Dakin technique of wound sterilization is rigidly carried out and the progress of the treatment is checked by bacterial counts or cultures, and by observation of the wound.

It is sometimes difficult but very necessary to keep the wound wide open following operation, especially where there are deep muscle walls. If the walls be permitted to fall together, the bone is obscured and the placing of Dakin tubes becomes inaccurate.

In the Carrell-Dakin technique the wound is ready for closure when the bacterial count is as low as three per field on three successive days, provided no streptococci be present.

According to Chutro's technique, closure is indicated regardless of the presence of in-

fection, excepting streptococci, when the exposed bone surfaces have become completely covered with granulations, which have grown in from surrounding muscle or other soft tissues.

In preparing the wound for closure the skin edges are exercised and the muscles and other soft tissues are mobilized so that the exposed bone may be completely covered. The muscle is closed with catgut sutures and the skin with silkworm gut. No drains are placed in the Carrell-Dakin closure. Chutro places rubber drainage tubes for the first thirty-six hours.

The following physiological and pathological observations are of interest in the treatment of infected bone:

Blood supply of bone comes from nutrient arteries and from the periosteum. The latter is the more important source. Areas of bone which have their blood supply too greatly impaired may die and become foreign bodies.

Exposed living bone surfaces produce granulations from Haversian canals. These granulations are of no value in healing unless they be brought directly in contact with capillaries of the soft tissues. These granulations, which grow from the Haversian canals, if left isolated, will soon be seen to become detached, surmounted upon a thin crust of sequestered bone. Other similar granulations may replace these and the process of sequestration continued.

While granulations grow slowly across a broad surface of exposed bone, parts of the bone may die from lack of capillary blood supply, and, too, the granulations which invade the exposed area become so filled with connective tissue cells, that a sear results and the thin walled capillaries are choked, causing anemia and death of the bone which they were to have supplied with nutriment. This cause of failure may be avoided by closure of the wound by mobilization of the soft tissues and suturing them so that their capillaries are brought in contact with the Haversian canal capillaries. In this way a blood supply is given to the bone equivalent to its normal periosteal vascularization.

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



Should a blood clot intervene between the bone and the overlying mobilized muscle, the capillaries will grow across the fibrin network to reach the bone tissues.

**Conclusions.**

1. Operable cases of osteomyelitis can be accurately treated and cured by the Carrell-Dakin method.

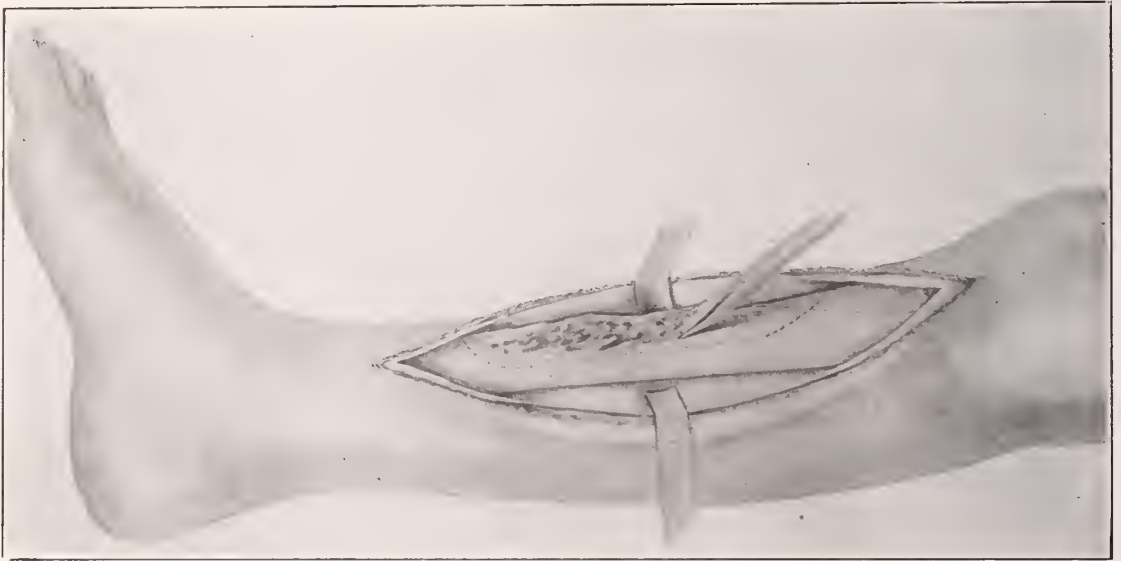
2. A thorough operation is essential.

3. Wound cultures and bacterial counts are of value in determining the progress of the wound sterilization.

4. Granulations which grow out from the Haversian canal capillaries are of no value in wound healing, except as connecting channels to anastomose with soft tissue capillaries.

5. Closure of the wound should be done as early as possible in order to give the bone a new blood supply before its vitality is impaired.

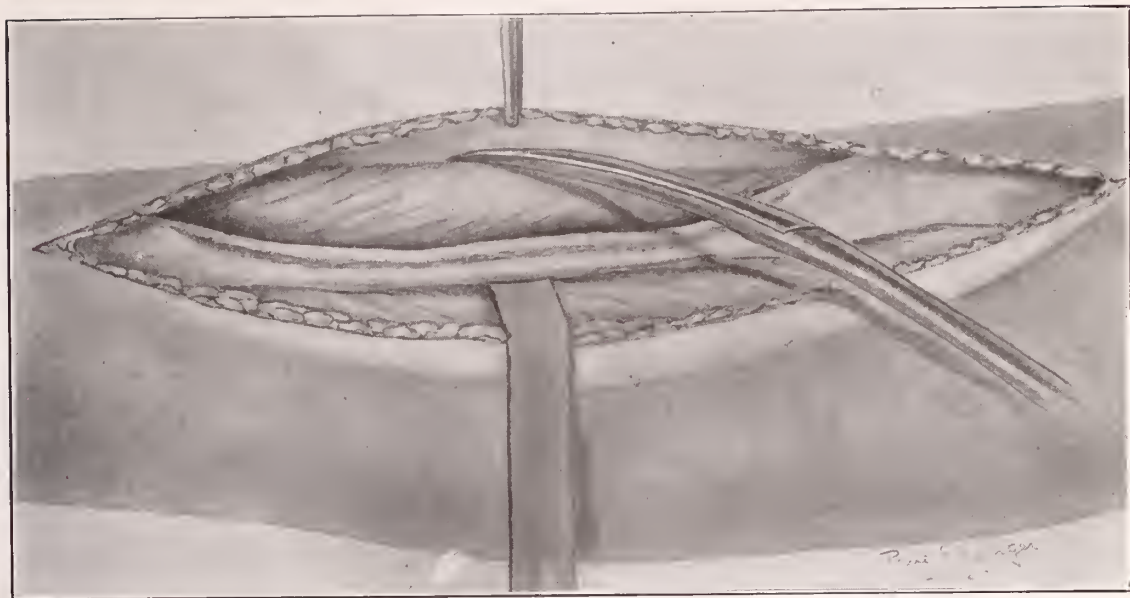
6. Foci of hematogenous infection should be sought and eradicated.



Drawing No. 1.  
Excision of diseased bone.

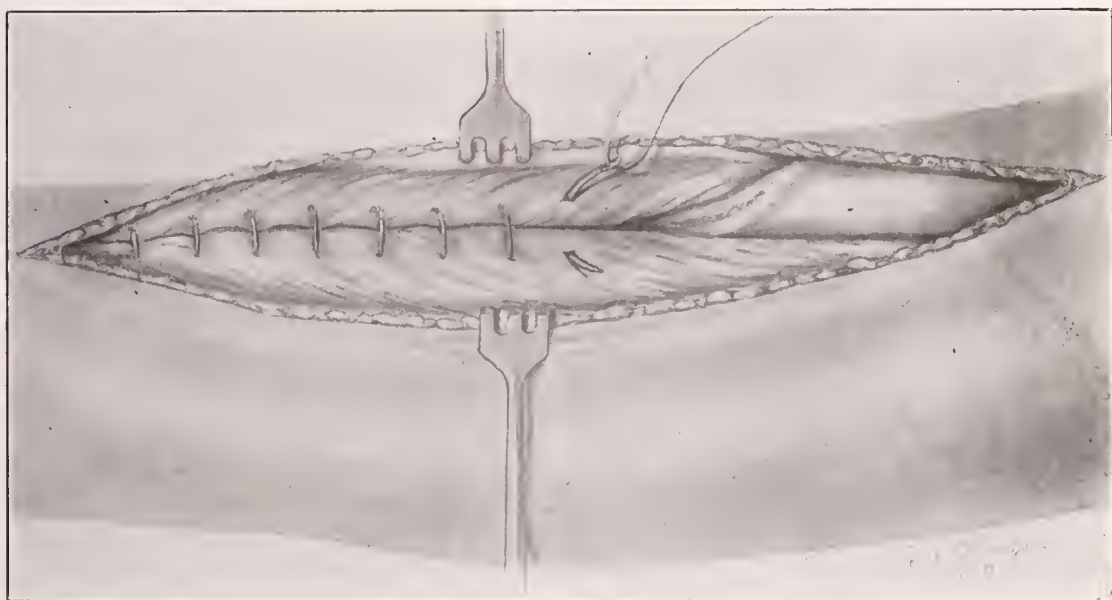


Drawing No. 2.  
Carrell-Dakin Tubes in place.



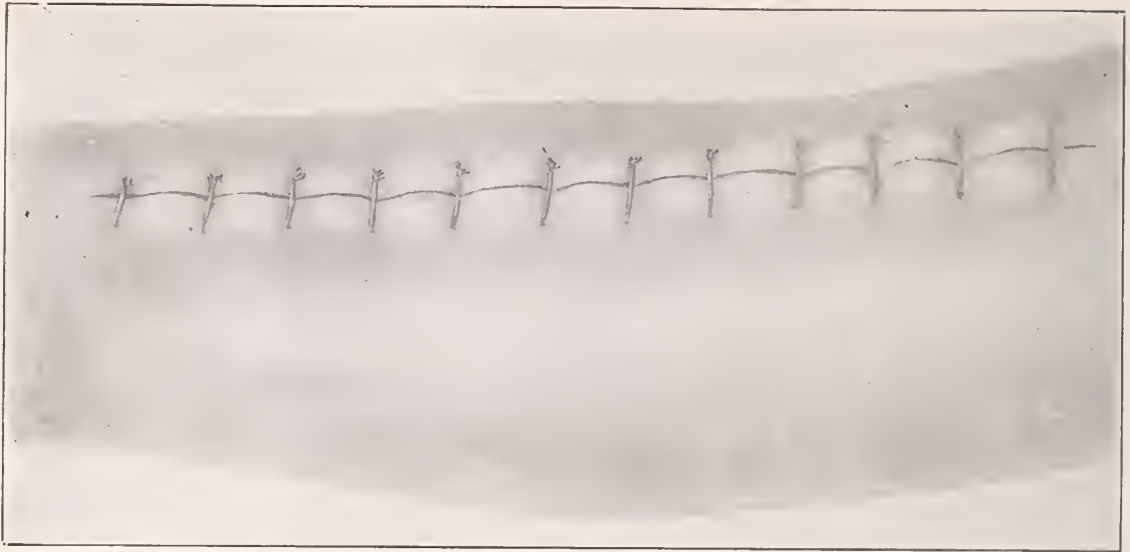
Drawing No. 3.

Mobilization of muscle and other soft tissues preparatory to closure of the wound by suture.



Drawing No. 4.

Closure of muscle over exposed bone surface.



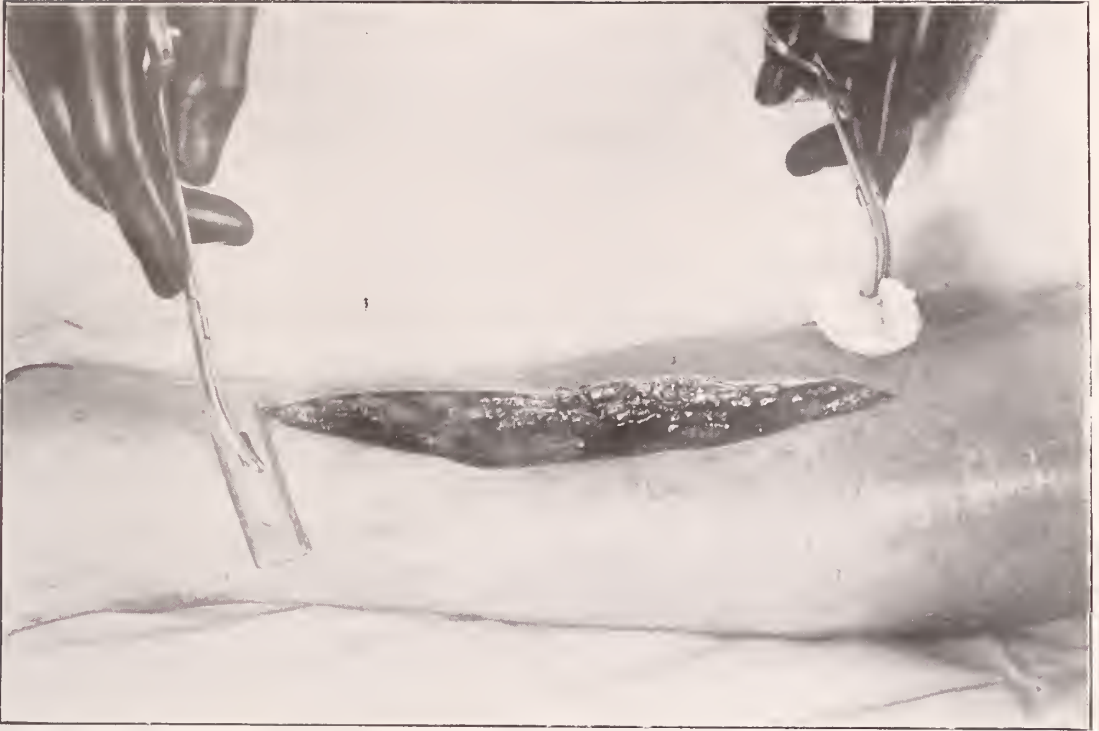
Drawing No. 5.  
Wound closure complete.

PHOTOGRAPHS SHOWING TECHNIQUE OF DAILY WOUND DRESSING.



Photograph No. 1.  
Cleansing skin surface with benzine.





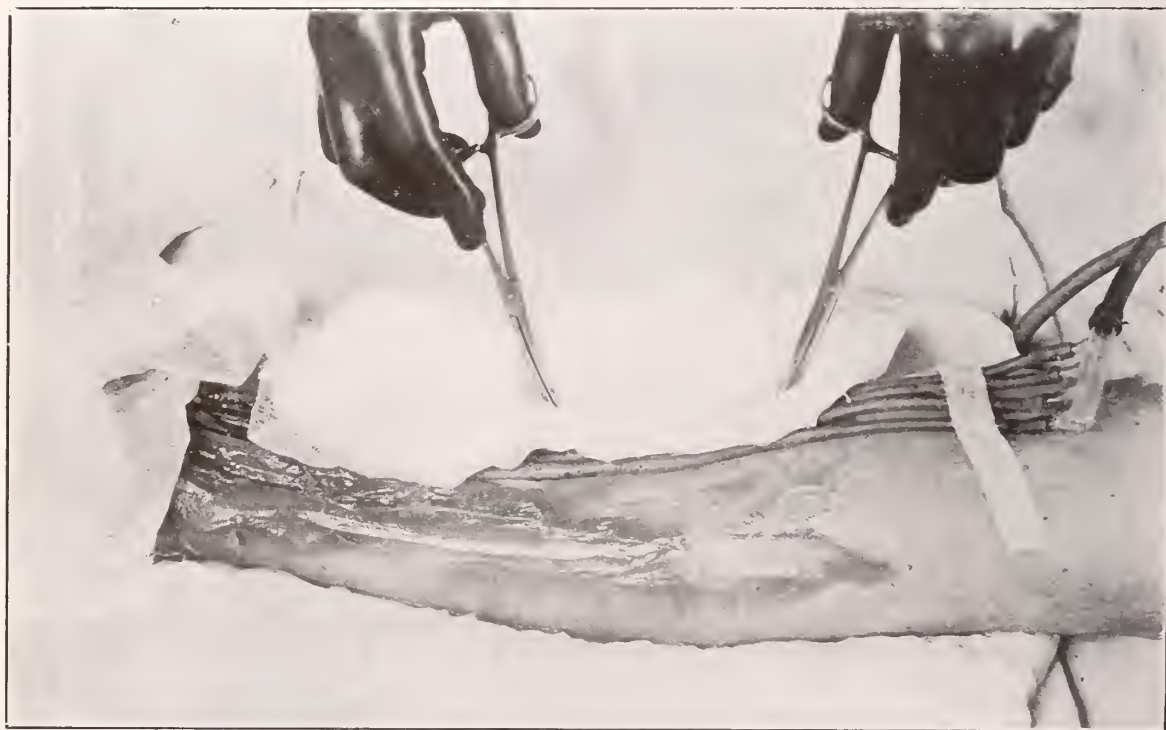
Photograph No. 2.  
Shaving the skin with sterile safety razor blade.



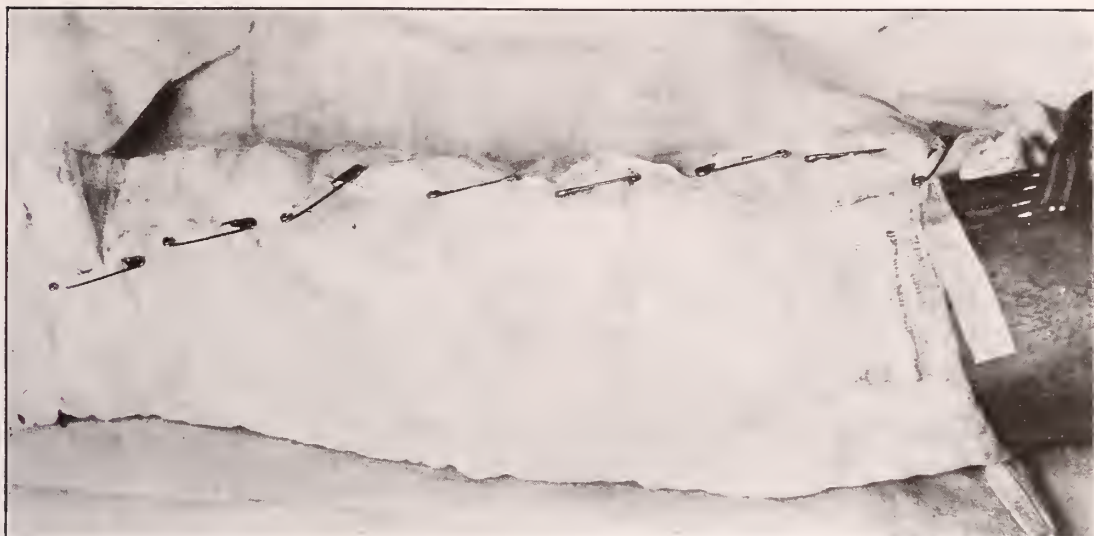
Photograph No. 3.  
Sterile vaseline applied to skin with spatula.



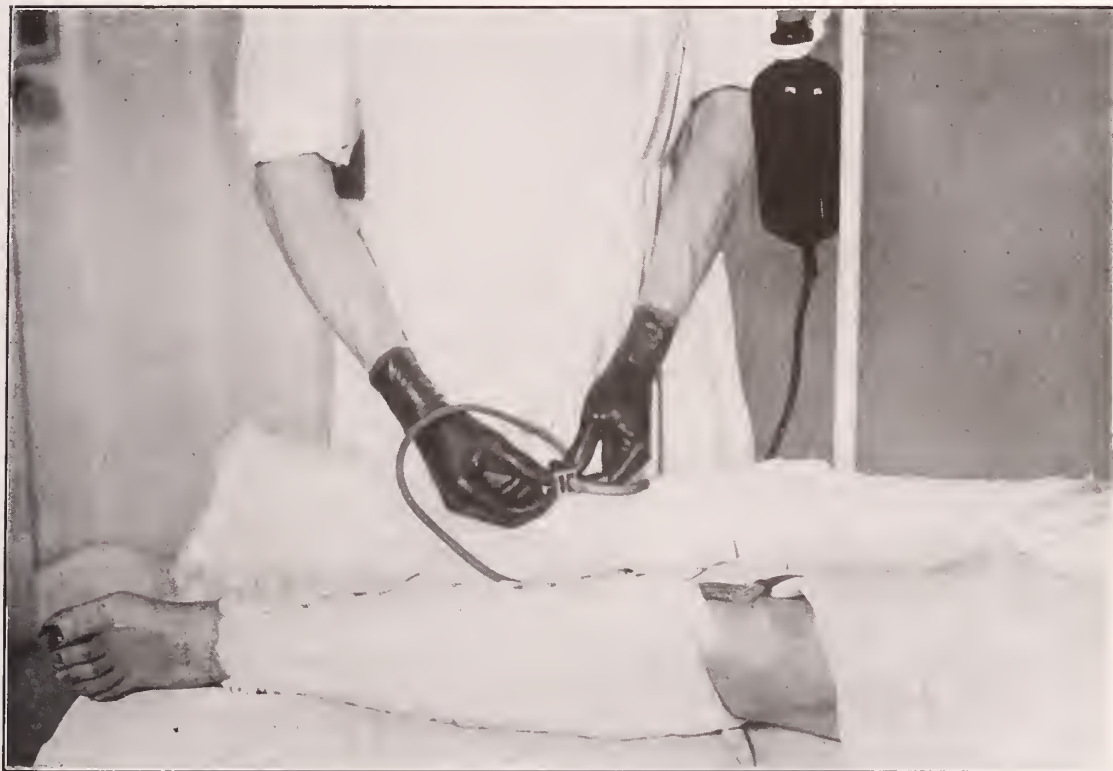
Photograph No. 4.  
Carrell-Dakin tubes being placed.



Photograph No. 5.  
Placing gauze dressings.



Photograph No. 6.  
Dressing Complete.



Photograph No. 7.  
Dakin's solution is instilled every two hours.



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	W. R. Houston, M. D., Augusta
Pathology and	
Bacteriology .....	V. H. Bassett, M. D., Savannah
	Allen H. Bunce, M. D., Atlanta
Endocrinology .....	Arch Elkin, M. D., Atlanta
Dermatology .....	M. B. Hutchins, M. D., Atlanta
	S. J. Lewis, M. D., Augusta
Roentgenology .....	J. W. Landham, M. D., Atlanta
Public Health .....	T. F. Abercrombie, M. D., Atlanta
SURGERY .....	E. G. Jones, M. D., Atlanta
General Surgery .....	Geo. R. White, M. D., Savannah
	F. K. Boland, M. D., Atlanta
	R. C. Franklin, M. D., Swainsboro
Gynecology and	
Obstetrics .....	E. C. Davis, M. D., Atlanta
	R. M. Harbin, M. D., Rome
Orthopedics .....	Theo. Toepel, M. D., Atlanta
	H. M. Michel, M. D., Augusta
Eye, Ear, Nose	
and Throat .....	W. C. Lyle, M. D., Atlanta
	J. M. Smith, M. D., Valdosta
Neuro-Surgery .....	C. E. Dowman, M. D., Atlanta
	Craig Barrow, M. D., Savannah
Urology .....	W. L. Champion, M. D., Atlanta
	T. E. Blackshear, M. D., Macon
Abstracts Medi-	
cal Literature .....	M. F. Morris, Jr., M. D., Atlanta
Abstracts Surgi-	
cal Literature .....	E. H. Greene, M. D., Atlanta
Clinics and	
Case Reports.....	C. E. Waits, M. D., Atlanta

## Editorial Department



## Christmas Greetings

## And a Happy and Prosperous

## New Year



### AN ENDOWMENT FOR THE EDUCATION OF YOUNG MEN IN MEDICINE.

With the increased cost of living and the extension of time required for the completion of the course in medicine, there has developed a difficulty for many young men worthy, but not affluent, to afford to meet these exacting requirements. There are many young men today of bright minds, anxious to enter upon the study of medicine, and many of them would make brilliant acquisitions to the profession if properly educated, and means should be provided to meet this situation.

There are many who have profited by the recent marvelous opportunities for money making, and they should be only too glad of the opportunity to invest some of their money in brains and for the benefit of humanity, by aiding such young men.

No better investment offers than to put money into developing young men for a useful career. A large donation to our colleges with the utilization of the interest as a loan would prove a great blessing at this time to a class, greatly in need of such assistance.

—Davis.

### PROPHYLAXIS IN MENTAL DISEASE.

In no field of medicine does the adage "an ounce of prevention is worth a pound of cure" obtain so forcibly as it does in the treatment of the psychoses.

The question of heredity and eugenics is the Banquo's Ghost that will not down in the usual approach to these questions, and viewing the subject from the standpoint alone the general practitioner is liable to overlook certain factors that he might approach and help to solve some of these problems. We wish to emphasize the importance of this matter so that these questions should not be overlooked in our rush and interest in the various and more popular medical topics of the day.

Psychiatric problems are not so unknown to the layman and the general practitioner since the world war brought to light the

importance of having soldiers that were mentally as well as physically fit. School teachers, social workers and other non-medical men and women are beginning to take more active interest in these matters and we deem it of vital interest to every one.

The Binet-Simon intelligent test, with various modifications is being used extensively by medical men, psychologist and co-workers to help unravel some of the problems along these lines not hitherto approached. The recognition of abnormal behavioristic phenomena in childhood, as well as the early symptoms of the psychoses will help to solve the problem.

How is the general practitioner, who has been taught only to prescribe pills, lotions and nauseating mixtures to know the import of these questions unless he has had some training and experience along these lines.

Our medical schools have a duty here and must realize their responsibility and make such plans and add such equipment to their teaching facilities as will meet the demands of the situation. The day has passed when the physician can feel "his duty well done" to his patient unless he has studied and is trained to recognize the various possible etiological factors active in bringing on the illness of his patient.

When we bear in mind that the etiological factors in mental diseases may be constitutional, exogenic, psychogenic, somatogenic or neurogenic, we realize the breadth of this subject and it is through the application of modern medical knowledge and tactics, if you please, that these problems can be approached. If we study these problems specifically from the various viewpoints we may have before us one that is simple or it may be complex.

We should be able to appreciate "these facts in an orderly fashion" and be able to wisely direct our treatment whether it be somatic, rest, reeducation or what not. We have got to break away from current tradition that has claimed so much for heredity. We must be able to decide how many facts and conditions enter into the causation of illness and recognize reaction complexes,

psychopathologic, cerebral, somatic, endocrinic and toxic infectious possibilities.

The problem of the chronic degenerative diseases, syphilis and focal infection should be kept constantly in mind by the general practitioner.

Internal medicine has not yet solved the riddle in toto of arteriosclerosis, and the statistics of state hospitals show arteriosclerotic brain disease is the most common of all causes in the production of the organic psychoses. This is a broad field for medical scientific research work. Endocrinology is beginning to grow and we are beginning to learn something of the endocrine functions that bids fair to explain formerly perplexing questions concerning the emotions and the affective life.

The relationship between psychiatric problems and endocrinology has not yet been worked out.

Let us plead that these problems are before us and what will we do with them.

—Swint.

## COMMUNICATIONS.

Camak, Ga., Nov. 12, 1920.

Dear Editor:—

Who is this wonderful doctor and does Ga. State Board of Medical examiners license such a man to practice medicine?

If you will note he gives a list of diseases, that he says the family physician is baffled at, and later says he will treat selected cases.

Can't the doctors of this state and the Journal rout and put to flight this Progressive Medical Doctor's Specialist.

Faternally yours,

—E. K. Lazenby, M.D.

NOTE.—The following advertisement from The Warrenton Clipper, Warrenton, Ga., November 12, 1920, is what is referred to by Dr. Lazenby. That we have this and even worse things going on in our State is due, in no small measure, to the apathy of the profession.

## COMING TO THOMSON ON A RETURN VISIT.

The Progressive Medical Doctors' Specialist.

Treating Diseases Without Surgical Operation.

**Free Consultation and Examination to All  
Who Need and Want Medical Aid.**

**Will be at the Eureka Hotel Saturday, Nov.  
13th, from 10 A. M. to 4 P. M. One  
day only, returning in 3 months.**

The Progressive Medical Doctors Specialist is licensed by the State of Georgia; a graduate of one of the best universities; twenty-five years of practical experience; comes well recommended. Will demonstrate in the principal cities methods of treating diseases of long standing by means of medicines, diet and hygiene, thus saving many people from a dangerous and expensive surgical operation.

This specialist is an expert in diagnosis and will tell you the exact truth about your condition. Only those who have a good chance to regain their health will be treated, so that every one who takes treatment will bring their friends at the next visit.

Those whose cases are found hopeless will be told the truth and be advised as to their mode of living, etc.

The diseases treated are: Diseases of the stomach, bowels, liver, blood, blood vessels, skin, kidneys, bladder, heart, spleen, eye, ear, nose, throat, scalp, swelling of the limbs enlarged veins leg ulcers, rheumatism, sciatic (sciatic rheumatism), paralysis, high blood pressure, weak lungs, bronchitis, consumption, asthma, appendicitis, gall stones, tumors, enlarged glands, goitre, piles, curvature of spine, club feet, nerves, weakness or exhaustion of the nervous system giving rise to loss of mental and bodily vigor, melancholia, discouragement and worry, undeveloped children, either mental or physical, and all chronic diseases of men, women and children that have baffled the skill of the family physician.

A diagnosis of any disease of long standing, its nature and cause, will be made Free and proper medicines will be furnished at a reasonable cost to those selected as favorable cases for treatment.

Children must be accompanied by their

parents and married ladies by their husbands.

NOTE.—This is the specialist who made so many wonderful cures last year.

Headquarters—Atlanta, Ga.

To The Medical Profession of Georgia.  
Gentlemen:—

I am getting together material for a paper on the Medical and Surgical History of Georgia, and will appreciate any references or information that any one may be able to give me, especially of the early Colonial and Revolutionary days. I will give due credit in the articles for all such information.

Respectfully,

J. L. Campbell,  
324 Candler Bldg.,  
Atlanta, Ga.

**MEETING OF THE ELEVENTH DISTRICT MEDICAL SOCIETY.**

The twentieth semi-annual session of the Eleventh District Medical Society convened in the Municipal Building at Waycross, Ga., on the 9th of November, being called to order at 11:00 A. M. by the President, Dr. R. C. Woodard, of Adel, Ga. Invocation by Dr. J. S. Sibley.

Col. Jerome Crawley delivered a hearty welcome on behalf of the city and our hosts, the Ware County Medical Society, which was eloquently responded to by Dr. H. C. Wheelchel, of Douglas.

The President's annual address was a well prepared scientific paper on the "Use and Abuse of Drugs," and was followed by a lively discussion by many of the doctors present.

Following are the other scientific papers presented before the meeting, which was largely attended:

"Fracture of the Shaft of the Femur and Its Conservative Treatment."—Dr. Kenneth McCullough, Waycross. This paper was well illustrated by numerous skagrams, and the appearance of a patient who had been operated for fractures of both femurs, with no deformity.

"Bone Graft Repair of Long Bone Frac-



tures,"—Dr. Raymond L. Johnson, Waycross. This paper was also illustrated with numerous photographs of operative procedures, skiagrams, and exhibit of instruments used.

Dr. S. L. Vinson, Nicholls, presented an intensely practical paper on "Headaches, in Symptomatology."

Before reading his paper on "Muscle Advancement Operation for Strabismus," Dr. Minchew, Waycross, presented two patients, aged 78 and 81 years, respectfully, on which he had operated; one for epithelioma of ocula conjunctiva, the other for trephine of the chambers for glaucoma.

"A case of Appendicitis due to Oxyuris Vermicularis," paper read by Dr. R. Bruce Patrick, Waycross, brought interesting discussions and records of similar cases.

Dr. C. W. Roberts, of Atlanta, charter member of the Society, and one of its former presidents, presented an interesting paper on "Congenital Pyloric Stenosis in Infancy."

Dr. Allen H. Bunce, Secretary of the State Medical Association, was a welcome visitor to the Society, and presented an intensely practical and interesting paper entitled, "Observations on Blood Transfusion."

At the conclusion of the afternoon session the usual routine officers' reports were presented, minutes read and new business taken up.

Two motions of special interest carried, providing that ex-officers removing to other districts be retained at their request as honorary members, and that officers of the State Association as elected automatically become honorary members of this Society.

The following officers were elected for the ensuing year:

President: Dr. A. S. M. Coleman, Douglas; Vice President, Dr. S. L. Vinson, Nicholls; Secretary-Treasurer, Dr. J. W. Simmons, Brunswick; Counselor, for three year term, Dr. E. J. Hall, Adel.

The Society went on record barring the reading of all papers, the author of which was absent.

Next meeting will be held in Brunswick, second Tuesday in June, 1921.

The day closed with a delightful banquet at the Phoenix Hotel, as guests of the Ware County Medical Society, and where numerous stories helpful and entertaining were told and fine addresses made.

J. W. Simmons, Secretary.

## SOUTHERN MEDICAL ASSOCIATION.

The fourteenth annual meeting of the Southern Medical Association was held in Louisville, Ky., November 15-18th. It was one of the best meetings in the history of the association. No more representative group of southern physicians has ever been gathered together. The scientific program was excellent and the scientific exhibits were well worth attention. All the sections were well attended but the section on medicine deserves special mention from the standpoint of attendance and order. Some of the sections were unfortunate in that several of the essayists were absent—apparently without having given the secretaries or chairmen of the sections advance notice so that their places could be filled. Let us remark in passing that we think that only providential reasons should excuse one who has accepted the responsibility of appearing before a scientific assembly of one's fellow physicians.

Leaving out of account the state in which the Association met (Ky.), Georgia was second only to Tennessee in point of attendance. Furthermore, the profession of this state was well represented on the scientific program. The next meeting of the Association will be held next November in Hot Springs, Arkansas. The complete list of the new officers of the Association and Section officers follows:

### Officers 1920-1921.

#### President.

Dr. Jere L. Crook, Jackson, Tennessee.

#### First Vice-President.

Dr. E. Bates Block, Atlanta, Georgia.

#### Second Vice-President.

Dr. G. A. Hendon, Louisville, Kentucky.

#### Secretary-Editor.

Dr. Seale Harris, Birmingham, Alabama.

**Business Manager.**

Mr. C. P. Loran, Birmingham, Alabama.

**Section on Medicine.**

Dr. B. W. Fontaine, Chairman, Memphis, Tenn.

Dr. Thompson Frazer, Vice-Chairman, Asheville, N. C.

Dr. Allan Eustis, Secretary, New Orleans, La.

**Section on Pediatrics.**

Dr. W. A. Mulherin, Chairman, Augusta, Ga.

Dr. W. McKim Marriott, Vice-Chairman, St. Louis, Mo.

Dr. J. Buren Sidbury, Secretary, Wilmington, N. C.

**Section on Nervous and Mental Diseases.**

Dr. Tom A. Williams, Chairman, Washington, D. C.

Dr. Paul V. Anderson, Secretary, Richmond, Va.

**Southern Gastro-Enterological Association.**

Dr. George M. Niles, President, Atlanta, Ga.

Dr. Marvin H. Smith, Vice-President, Jacksonville, Fla.

Dr. J. B. Fitts, Secretary, Atlanta, Ga.

**Section on Radiology.**

Dr. O. H. McCandless, Chairman, Kansas City, Mo.

Dr. T. A. Groover, Vice-Chairman, Washington, D. C.

Dr. Joseph T. McKinney, Roanoke, Va.

**Section on Surgery.**

Dr. John R. Caulk, Chairman, St. Louis, Mo.

Dr. A. L. Blesh, Vice-Chairman, Oklahoma City, Okla.

Dr. Hugh H. Tront, Secretary, Roanoke, Va.

**Southern States Association of Railway Surgeons.**

Dr. D. Z. Dimott, President, Baltimore, Md.

Dr. L. E. Bureh, Vice-President, Nashville, Tenn.

Dr. J. W. Palmer, Secretary, Ailey, Ga.

**Section on Urology.**

Dr. A. J. Crowell, Charlotte, N. C.

Dr. E. G. Ballenger, Vice-Chairman, Atlanta, Ga.

Dr. J. C. Vinson, Secretary, Tampa, Fla.

**Section on Orthopedic Surgery.**

Dr. E. S. Hatch, Chairman, New Orleans, La.

Dr. W. B. Owen, Vice-Chairman, Louisville, Ky.

Dr. Willis Campbell, Secretary, Memphis, Tenn.

**Section on Obstetrics.**

Dr. Geo. C. Mosher, Chairman, Kansas City, Mo.

Dr. Calvin R. Hannah, Vice-Chairman, Dallas, Texas.

Dr. Jas. R. Garber, Secretary, Birmingham, Ala.

**Section on Eye, Ear, Nose and Throat.**

Dr. W. T. Patton, Chairman, New Orleans, La.

Dr. H. H. Briggs, Vice-Chairman, Asheville, N. C.

Dr. John J. Shea, Secretary, Memphis, Tenn.

**Section on Public Health.**

Dr. S. W. Weleh, Chairman, Montgomery, Ala.

Dr. P. W. Covington, Vice-Chairman, Louisville, Ky.

Dr. Henry Boswell, Secretary, Sanatorium, N. C.

**Conference on Medical Education.**

Dr. Douglas Vander Hoof, Chairman,

Dr. Kenneth M. Lynch, Vice-Chairman, Charleston, S. C.

Dr. I. I. Lemann, Secretary, New Orleans, La.

**MEETING OF THE GEORGIA SECTION  
OF THE CLINICAL CONGRESS OF  
SURGEONS TO BE HELD IN  
ATLANTA.**

The Georgia State Section of the Clinical Congress of the American College of Surgeons is arranging to have a meeting in Atlanta sometime in January.

At least two Surgeons of prominence will be present and a program of more than ordinary interest is being planned.

Dr. Franklin H. Martin, of Chicago, who has so ably conducted the affairs of the American Clinical Congress of Surgeons will also be present.

Meetings similar to this have been held in a number of States with great success from the standpoint of attendance, clinics, scientific papers, and one public meeting in each State.

At the public meeting will be discussed the problems bearing on the standardization of hospitals, dispensaries, and other health matters.

The Members of the College who live in Alabama and Florida are also invited to be present at this meeting.

The tentative program for the two day session is as follows:

#### **First day of the Sessions.**

9:00 A. M. to 1:00 P. M.—Clinics in the various hospitals by members of the College and invited associates.

2:30 P. M.—Resume of the clinics held during the morning; scientific session to be addressed by prominent surgeons selected by the Executive Committee and Committee on arrangements of the State; annual meeting of the Section (election of Executive Committee, selection of the next place of meeting, and other routine business); meeting of the State Committee on Credentials.

8:00 P. M.—Meeting to the public, to be addressed by a lay individual of prominence; the Chairman of the State Section; the Secretary-General of the American College of Surgeons; one or two surgeons of national reputation; the Director of the American College of Surgeons on Hospital Standardization. Closing remarks by the Chairman of the Section or a prominent lay individual.

#### **Second Day.**

9:00 A. M. to 1:00 P. M.—Clinics as above.

2:30 P. M.—Resume of clinics held during the morning; scientific session to be addressed by the Chairman of the State Section; the Secretary-General of the American College of Surgeons on Better Surgery; two scientific papers by surgeons of note; closing remarks by the Chairman of the State Section.

The Committee on arrangements is composed of Dr. William S. Goldsmith, Atlanta, Chairman; Dr. Edgar G. Ballenger, Atlanta,

Secretary; and Dr. Agnew H. Hilsman, Albany, Counselor.

#### **NEWS ITEMS.**

At the convention of the American College of Surgeons which was held in Montreal on October 15th the following Georgia surgeons were made Fellows of the College:

Joseph Akerman, Augusta; Ross Parker Cox, Rome; John F. Denton, Atlanta; Walter B. Emery, Atlanta; Emmett D. Highsmith, Atlanta; James R. McCord, Atlanta; Kingman P. Moore, Macon; Weldon E. Person, Atlanta; Robert B. Ridley, Jr., Atlanta; William A. Selman, Atlanta; Olin H. Weaver, Macon.

The seventeenth annual session of the Association of Seaboard Air Line Railway Surgeons was held in the DeSoto Hotel, Savannah, Ga., December 1st and 2nd. An excellent scientific program was presented and the meeting was in every way a splendid success.

The people of Carroll County have opened the Carroll County Memorial Hospital which is located on Maple Street in Carrollton. The hospital will be open to all ethical physicians of Carroll County. The hospital is completely equipped and has a capacity of twenty-four beds. It is under the management of a lay Board of Trustees and has the following physicians on the Advisory Board: Dr. H. H. Askew, Dr. H. L. Barker, Dr. H. J. Goodwin, Dr. T. W. Reeves and Dr. C. C. Fitts.

Dr. Jugo Robinson has been elected Commissioner of Health of Dougherty County to succeed Dr. H. C. Robles, deceased.

State Commissioner of Health, Dr. T. F. Abernombie, has been busy the past few weeks taking over the Tuttle Newton Orphanage at Augusta, which has been purchased as a school for feeble-minded. A superintendent and teachers are being sought. It is very much desired that it can be opened in at least a small way by the first of this New Year.



Free clinics for rural communities will be conducted by Dr. Boeker of the Child Welfare Bureau. Thorough examinations are made, eye defects corrected and tonsils and adenoids removed. This is as far as the work goes at present, but it is quite likely that the scope will be enlarged as the demand grows. This work is only contemplated in rural sections where specialists are not obtainable.

The Division of Venereal Diseases Control has succeeded in securing Dr. Babe, a lecturer of reputation, to do educational work among the women. The work will start about December 15.

Mr. Ralph Mostellar, who has for the past year been connected with the Red Cross Medical Staff in Siberia, has been appointed Assistant Bacteriologist for the State Board of Health Laboratory. Miss Chloe Allen, who formerly held this position, resigned to assume a more important position. She is now Mrs. A. W. Jackson.

The Bureau of Vital Statistics is fast approaching the 90 per cent. required by the U. S. Government and will soon be admitted to the registration area.

The following counties have recently adopted the Ellis Health Law: Richmond, Hall, Early and Miller, making a total of 30 counties in the State which have made the necessary provision for full-time health officers.

### MEDICAL ABSTRACTS.

Edited by

M. F. Morris, Jr., M.D.

#### Pernicious Anemia.

A study of One Hundred and Forty-Eight Cases. In reviewing the results of this study, Carr (*Am. Journal Med. Sciences*, Nov. 1920) finds that the clinical complex known as pernicious anemia presents certain characteristic blood findings, particularly the high color-index, the pres-

ence of many large erythrocytes and of nucleated red cells, especially megaloblasts, and a tendency to a leukopenia, with a relative lymphocytosis; the clinical symptoms, though secondary in importance from the standpoint of diagnosis, are yet distinct and definite. The progressive weakness, the gastric disturbances, the dyspnoea, pallor, the cardiac finding and the edema of the feet are the most typical and constant findings. Though pernicious anemia has its own characteristic findings, it may be simulated closely by anemias resulting from various diseases; in fact, the blood picture of pernicious anemia may be presented exactly as the result of some definite septic, toxic, or malignant condition. The diagnosis should rest not on the blood findings alone, nor on the blood findings and the symptomatology, but on these two features in the absence of any discoverable cause of the anemia. The disease is more common in males and is most frequent in the fourth and fifth decades of life.

The cardiac symptoms and physical findings (the murmurs and the dilatation of the heart) are so constant as to be looked upon as among the most common symptoms of the disease. Anatomically, valvular disease is not a part of pernicious anemia; the cardiac findings are the result of myocardial weakness and relative insufficiency. Ascites and anasarca are not symptoms of pernicious anemia. The systolic and diastolic pressures are usually low, and the pulse pressure is high. The urine is usually of a fairly low specific gravity, rather increased in quantity, and rarely contains albumin; the presence of albumin with casts means nephritis, which may be the cause of the anemia rather than the effect. Pernicious anemia is characterized by an irregular temperature, which is not often above 101 degrees; there are often recessions to normal. Achylia gastrica is so much the rule that the presence of free HCL may justifiably raise a doubt as to the diagnosis. The gradual decrease in the leukocyte count, especially in the relative and absolute number of polymorphonuclears, is of serious prognostic import. The

diagnosis of pernicious anemia should be made with the utmost reserve in the presence of a leucocytosis. Transfusion of blood will not cure, but will often prolong the patient's life. The transfusion of citrated blood is a simple procedure, but not a harmless one. Before the operation is undertaken, the blood of donor and patient must be demonstrated to be compatible by an acceptable and approved technic.

### Blood Chemistry Studies in In Influenzal Pneumonia.

Most of the fatal cases studied by Wells (Archives of Internal Medicine, Oct., 1920) showed an increase in the blood uric acid, the average being 4.45 mg. per 100 C. C. of blood. In the non-fatal cases, the blood uric acid averaged 3.14 mg. In seven of the non-fatal and three of the fatal cases, the urea nitrogen was more than 40.0 mg. As a result of the determination of the carbon-dioxide combining power of the blood on several cases, Wells believes that a lowering of the carbon-dioxide combining power is very apt to be found in all serious illnesses, especially in cases having considerable pulmonary involvement or decided circulatory disturbance.

### SURGICAL ABSTRACTS.

Edited by

Edgar H. Greene, M.D.

**Farr, Charles E.**

PERFORATING GASTIC AND DUODENAL ULCER—Annals of Surgery, 1920, LXXII, 5.

Of the acute abdominal crises perforation of a gastric or duodenal ulcer ranks easily first in its dramatic onset, its violence of symptomatology, and its gravity.

During the past six years, the author has operated on twenty-four cases of acute perforation with a mortality of 12 1-2 per cent. A large majority of his cases were gastric, rather than duodenal, and all, with one exception, within three inches of the pyloric ring.

The duration of the acute symptoms was from twelve to twenty-four hours. Peri-

tonitis was usually localized to the site of the perforation from three to eight mm. Closure, with fine chromic gut, was easily effected in all save two cases. Posterior gastro-enterostomy was done but once. No drainage was used in uncomplicated cases. The appendix was markedly involved in all cases and acute cholecystitis was found in one case; also two cases with co-incident cholecystitis and cholelithiasis. These complications were surgically treated.

The end results in twenty-one recovered cases are known in about one-half the cases. Gastro-enterostomy on two for pyloric stenoses, all others were in good health at last examination and evidently free from ulcer symptoms.

The diagnosis in all the uncomplicated cases was obvious. A brief record is given by the author of five cases that are exceptions. Two could hardly be induced to lie down but persisted in sitting upright. Most of these cases showed a rise in temperature and increase in pulse rate and leukocytes.

The diagnosis in uncomplicated perforation of stomach or duodenum is easy—however, it must be remembered that acute perforation of the gall bladder from gangrene, acute pancreatitis, and occasionally high-lying perforated appendices will give symptoms suggestive of stomach perforation. Agonizing pain and board-like rigidity in the first few hours have been absent in the author's cases. Shock is absent and vomiting is not the rule. After twenty-four hours the symptoms are masked by the spreading peritonitis.

The writer believes that certain cases of perforation do occur in which there is rapid adherence which closes it. The majority, however, go on to spreading peritonitis and death, if not closed surgically.

The other question of procedure is whether gastro-enterostomy should be added. Deaver urges that this be done in all cases. Conners is just as strongly opposed.

The author gives argument for and against gastro-enterostomy, his opinion be-

ing in favor of simple closure of the perforation without gastro-enterostomy.

Early diagnosis is essential. Gastro-enterostomy should be reserved for the few who may need it later.

The cause of gastric ulcer is not known, but the occurrence of chronic appendicitis in such a large proportion of cases is suggestive of one etiological factor. Other chronic infections probably have a similar relationship.

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BLESCH, A. L.—Foreign body in the Esophagus—Surgery, Gynecology and Obstetrics, 1920, XXXI—4.

A female child, age 3 years and 6 months, has since birth had difficulty in swallowing, especially solids—(a case of anomalous and relatively rare condition of congenital stricture of the esophagus).

Twenty-four hours before admission to hospital, she swallowed a 5-16 inch steel ball-bearing and has been unable to swallow anything since. A roentgenogram shows the foreign body lodged in the lower third of the esophagus.

Technique used in removing the foreign body: The distal end of a stomach tube was cut and the funnel removed. The funnel end of the tube, which flared somewhat, was passed down to the foreign body. To the cut tip of the tube was attached an ordinary piston from a 150 C. C. syringe. Strong suction was applied and the tube slowly withdrawn. When the ball reached the pharyngeal muscles it would be dislodged by muscle spasm. This happening several times, it was decided to anaesthetize the patient. The ball was withdrawn at the first attempt.

# CLINICS AND CASE REPORTS.

Edited by

C. E. Waits, M.D.

## PROCAINE ANESTHESIA, WITH A REPORT OF ONE CASE IN DETAIL.

The choice of an anesthetic is not so often a debatable question, but it should be a question of very deep concern. In the

strong and robust any form of anaesthesia may do: but in the physically weak and especially the aged, when the myocardium has become greatly weakened, and there may co-exist an interstitial or parenchymatous nephritis, giving respiratory distress and the like, then the choice of an anesthetic becomes of much concern. Some one might say that in this class of patients we do not consider an operation so much anyway, but I have found that it is wonderful what can be done with this class of surgical sufferers under a satisfactory local anesthetic. Then, too, we quite often meet with emergencies here, particularly the incarcerated and strangulated hernias.

I want to report briefly one case of incarcerated umbilical hernia operated recently that put procaine anaesthesia to a severe test and mention others that will verify its usefulness.

The case which is the subject of this report is that of a large, multifarious woman weight 275 pounds with a very large pendulous abdomen, the seat of an extra large umbilical hernia since her second childbirth, forty-six years ago. This having been operated twice before but of no avail. She is 69 years of age, has fatty degeneration of heart, heart block and arrhythmia, which is extreme at times, interstitial nephritis, phenal-sulphone-phthalein functional test thirty-five per cent embarrassed respiration, etc. She was under treatment at the time of her accident and had been for more than a year. She had always been able to reduce her hernia if any pain or other disturbance occurred in the sac, until this time. When she found it irreducible from Saturday until the following Wednesday, when I saw her. During this period she suffered intense pain except for morphine hypodermatically and refraining from food.

The Clinical problem that the patient presented required an immediate solution as she had already gone practically four days without food and was rapidly becoming exhausted. The length of operation that it must of necessity be and the contra-indication to general anaesthesia of any form as enumerated led us to choose local anaesthe-



sia. Preliminary to the operation a quarter grain of morphine and 1-50 gr. atropine were given hypodermatically. Then the patient was placed on the table and made as comfortable as possible. The sight of operation prepared in accord with the usual Tr. of iodine technic. An illiptical transverse area was blocked off by infiltrating the skin and deeper into the fascia, then laterally through the recti muscles into their posterior sheaths with one half of one per cent procaine to which four drops of adrenalin to the ounce had been added. This illiptical area was about ten inches long and six inches wide. The dissection was made through skin, fat, and fascia down to neck of sac. Then the neck of sac. was infiltrated and opened. The contents of sac. were the greater part of ileum, caecum, and appendix; ascending and transverse colon with the omentum which were bound to the sac. in places by firm adhesion. Adhesions were released as we went along, the small bowell returned to abdominal cavity first. The omentum had firmly grown to the sac., so had to resect it entirely from transverse colon before returning the colon to abdominal cavity.

Next the caecum with appendix was in view. To give you an idea how well the patient was doing, I said "Hello, here's the appendix. Shall we take it out?" When quickly she responded, "Yes, doctor, take it out, my right side has been painng me for a long time." So we injected some solution into the meso-appendix and took it out painlessly. Then the caecum and ascending colon were returned through the opening. Next the recti muscles were dissected free and pulled to midline. Then intralocking silk worm gut stitches placed through all the structures and passed out laterally somewhat as mattress stitches, making the tension in opposite directions, holding all structures toward midline. Peritoneum and

fascia were stitched with chromic cat gut overlapping them as much as possible and dragging the recti muscles to midline. Skin closed with skin clips, dressings held down firmly by broad adhesive strips. Patient returned to bed in excellent condition, even though she had been on the table almost three hours—with a remarkable convalescence.

Comment: Successful local anaesthesia must take into account two facts, namely, the initial administration of morphine and the co-operative attitude of the patient.

The time consumed in this operation was due to the fact that the sac. was so large, contained such a quantity of bowels, and they so adherent to sac., requiring so much dissection, as you remember this case had been operated twice before.

We find with others that a five-tenths per cent solution is a very efficient anaesthetic and that as much as a hundred and fifty to two hundred c. c. may be used without toxicity.

We have used it in a variety of operative procedures, simple hernistomies, drainage of chest cavities, both the opened and the closed methods, removal of external growths. For skin grafting it is excellent.

R. C. Franklin, M. D.

Swainsboro, Ga.

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## BIRTHS

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Dr. and Mrs. W. L. Ballenger, Atlanta, announce the birth of a son, W. L., Jr., October 11, 1920.

Dr. and Mrs. E. Bates Block, Atlanta, announce the birth of a daughter, Julia Lowry, November 18, 1920.

Dr. and Mrs. W. E. Barber announce the birth of a daughter, Rose Marion, October 9, 1920.

## BOOK REVIEWS.

**The After-Treatment of Surgical Patients.**  
**Willard Bartlett, M.D. C. V. Mosby**  
**Company, St. Louis, Publishers.**

It is well that a book of this character comes from the press every few years. Medical literature is surfeited with books on some subjects, but from time to time there is real need for new writing on the post-operative treatment of surgical patients. The results of good operative work may be marred or completely lost by poor post-operative management.

Many valuable works of the kind have appeared in the past, but almost any discussion of one or two decades ago of such ever-changing matter is not now up-to-date and is not the best teaching. For this reason we are glad to have a brand new book on the subject. It is not best that medical books go through too many editions; better consign the old edition to back shelves and come out with work new from the ground up. Any book, however meritorious in the beginning, if carried through too many so-called "new" editions, is bound to contain inappropriate illustrations and subject-matter not in accord with our latest experience. It is impossible to weed out all the old ideas.

In their excellent two volumes Dr. Bartlett and his collaborators have avoided entirely any criticism that their work is not up-to-the-minute. It is jam up. Any one familiar with Dr. Bartlett's handling of his own patients knew in advance that if he succeeded in getting his ideas well-expressed in print he would make a splendid contribution to the literature. And this he has done. It is one of the most original and satisfactory works we have seen in a long time.

Some reviewers have stated that such books as these are useful only to the man who has never served a hospital internship. This might be true of some books on the subject which carry an over load of antiquated matter. To read Bartlett's work, however, is like reading a series of papers on the subjects discussed, and may be studied with interest and profit by the most experienced surgeon.

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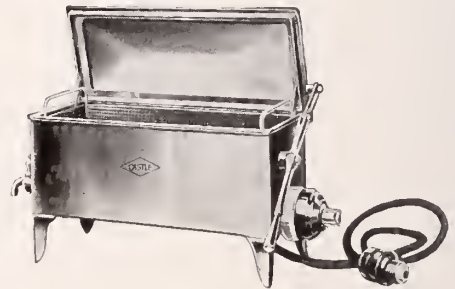
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—Boland.

#### THE BLIND ABSCESS. (A FABLE).

Doctor Dentos grew fat and waxed strong in the laud. He extracted money and teeth from the multitude suffering from ills which M.D.'s should have treated. After reaching the Plutocratic State he decided to lead the Life of Mike. Dentos had a fondness for "chickens" and rich viands. His daily exercise was expounding the curative effects of teeth extraction to his chickens and Fellows. All could be Methuselahized by being deodontiated, plated and bridged. He finally overtrained on chickens and chow and developed carburetor trouble which his medical advisor pronounced gout and hypertension. His ignition went bad and the opportunity came to heal himself. The good teeth were removed with their evil companions and he had to do a McSweeney from inability to masticate. Soon he was ushered before the Supreme Arbitor of Souls. He was promptly placed in the Tenth Collar down with Chiropractors and Christian Scientists, forced to have his teeth extracted before each meal and fed upon bull beef and new ground collards.

Moral: We always get our dues, but sometimes late.

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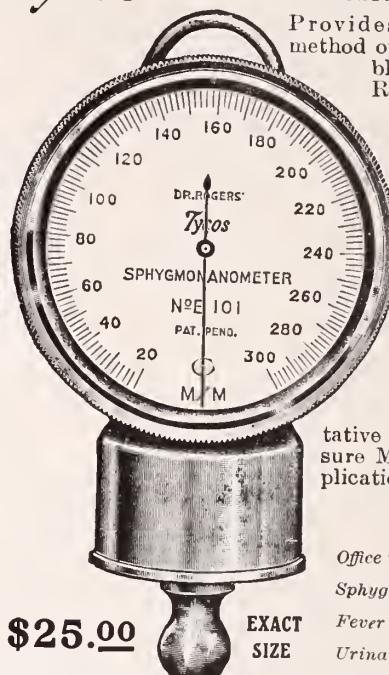
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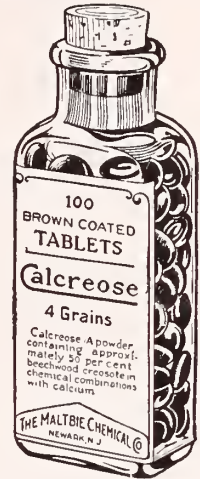
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In hematemesis give by mouth about one drachm of the 1:1000 solution. The ingestion of the remedy in this case brings it into immediate contact with the bleeding vessels. In hematuria the injection into the bladder of an ounce or two of a solution of Adrenalin 1:5000 or 1:10,000 is frequently effective.

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### ORIGINAL ARTICLES

#### DUCTLESS GLAND THERAPY IN DEFECTIVE CHILDREN. EXPERIMENTAL WORK IN MENTAL AND PHYSICAL DEFICIENCIES AND BIRTH PARALYSES, WITH REPORTS OF CASES.

LEE BEN CLARKE, M.D.

Formerly Professor of Pediatrics, Emory University School of Medicine, Visiting Pediatrician to Wesley Memorial Hospital and Scottish Rite Hospital, Chief Pediatrician Georgia Baptist Hospital, Atlanta, Ga.

This paper is not intended to deal with either hypo- or hyperpituitarism per se—except inasmuch as concerns the probable relation of the pituitary body to diseases and conditions hitherto supposed not alone to have not the remotest connection with the pituitary, but which have been ascribed to other etiologic factors and in many instances bearing an accepted pathology, and its relation to other ductless glands.

The work described in these pages differs from what has been written upon this and kindred subjects since it is limited entirely to infants and very few young children.

The title selected is only partly descriptive since the cases upon which the experiments have been made occupy a wide range of conditions of many different types, one success leading to another experiment, and most of them appearing at the outset a daring inroad into our present day modern text book. In only one single case were there the markings of the cretin, and these were very slight, hence, myxoedema has

not been present, and none of the cases had the signs of pituitarism as generally accepted, in accordance with our very limited information upon this subject.

Upon retrospection, one must conclude that there was an enormous lapse of time between probably the earliest work done on the ductless glands, the descriptions of Cretinism by Fagge in 1871, the establishment of this disease as Hypo-thyroidism—and the work of recent years upon diseases of the ductless glands. Strange that the thread of medical thought along this line should have broken so completely for so long a period of years.

Within the past few years however, a great deal of investigation has taken place by advanced thinkers, and gradually there has been opened up a field with apparently unlimited possibilities. We are just beginning to toddle in this field and just studying the first primer.

The most recent and most important addition to our knowledge of these diseases is what we are beginning to learn about that organ which appears to be the balance wheel of development and growth, the pituitary body.

I say most important advisedly, for the reason that in our investigations, while this gland does not appear to be wholly concerned in the cases treated, yet it certainly seems to delve into and to ramify its influence everywhere. The pituitary and its diseases have been among the foremost topics of discussion within the past few years, but with very little dependable knowledge obtainable. The medical mind however, has thirsted for more knowledge, has eagerly grasped information put forth by investigations and has attempted the practical and applied use of all such information. It was the application of this mea-

ger knowledge that led to the investigations we have been conducting for many months past and the results of this experimental work constitute what apparently are a series of discoveries which have astounded us. They are almost incredible.

The work was begun from a two-fold standpoint—one, the attempt to do something for defective children and to establish a connection with disordered internal secretions, with the plan in view of beginning treatment in the early months. The other, to work out practically the idea that there exists a correlation of the pituitary and not alone the thyroid, but others. The work was done upon this hypothesis, and the results obtained emphasize the probability that the entire ductless system is strongly correlated, with the pituitary body occupying the position of governor in this complex machinery.

After many months of patient waiting we have established to our utmost satisfaction that many cases of apparent idiocy—the spastic child—the defective child, are due to disordered internal secretions, and that these cases are not, as hitherto supposed, hopeless.

If the work continues as successfully as for the past year, then it would appear that several chapters upon diseases of the nervous system in today's text books will have to be rewritten.

Something is absolutely wrong, the causative factors are evidently in a far different location from what has been heretofore supposed. The results of the investigations appear to show that schools especially conducted for the training of the defective child may prove useless and unnecessary, and while it would be wise that we curb our enthusiasm, yet it is possible that a few months treatment, as has occurred in many of our cases, may be of far more benefit towards developing a fairly good mental and physical condition than all of the schools for this purpose have ever accomplished in a life-time.

Possibly the most harrowing ordeal the Pediatrician is called upon to endure is that of informing a heartbroken mother that her baby is an idiot, or will never walk or talk, or, will always be a care, and that he can

offer no help. Frequently this sentence to a life of darkness and uselessness it but a repetition of judgment passed previously, but with that hope for something to cheer her and to bring a little more sunshine into her life, she makes the round from one to another, searching vainly for some medical man who shall offer encouragement and shall pronounce the case not hopeless.

Late in 1918, after an unusual run of these cases, and the application of much thought, it was determined to attempt work on them as glandular cases, and the result is this paper.

The birth paralysis type of Infantile Cerebral Paralysis, whether it be spastic diplegia or para—or hemi-plegia, hitherto and now claimed incurable, has shown remarkable improvement under treatment.

Infant cerebral paralysis has been classified in the main as of three types with many variations. 1. Intra-uterine origin, occurring prior to birth. 2. Extra-uterine origin, occurring at birth. 3. Acquired.

The cases of spastic paralysis under care resulting from a birth paralysis, in which there was obtainable the history of a long second stage of labor, small or misshapen pelvis, much moulding, and especially in an old primipara, or a too greatly delayed application of forceps, in some instances associated with symptoms appearing a few days after birth, have been classified as of the Extra-uterine type. The cases in which no history of any of these attendant conditions existed have been classed as Intra-uterine. No acquired case has as yet been treated.

The Intra-uterine type has for the most part an unknown cause but results in arrested development. It will be remembered that the Extra-uterine type is held due to a clot resultant from a hemorrhage, hence, an organic lesion ending in both physical and mental deficiency. Therefore, one might reasonably assume that the cases in which so great an improvement had occurred were of Intra-uterine origin. This however, is not wholly true, if the present accepted classification is correct. The results of our investigations lead us to believe that

the classification is not correct and we have concluded that very few infants, if any, who live, have suffered permanent injury at birth. The only exception we believe to be the micro-cephalic cases.

Children who have never before stood on their feet, have taken steps under a remarkably short term of treatment. Spastic limbs have ceased their movements. Nystagmus has disappeared entirely. Hands that presented a permanent wrist drop with no finger function, unable to grasp or play with a toy, are now grasping and playing with objects, and others whose attention could not be attracted, now show intelligence replacing the previous vacant stare. It sounds incredible, it is true, but the facts and truths exist.

This work of classifying the defective infant as an internal secretion case, began in February, 1919, and has continued throughout the year until the present. It had been our intention to make a preliminary report this summer or in the early fall, but it was deferred for still further results, and is now presented to you. Some of the cases live out of Atlanta and the reports upon their progress are excerpts from the letters of parents, the children being examined occasionally.

A great object lesson learned from the work is that in the past entirely too many defective children have been refused treatment and have been classed as idiots. True idiocy undoubtedly exists, but is not as common as has been held, and many cases heretofore dismissed cursorily as incurable, can unquestionably be helped, perhaps, in time, entirely cured. It has been demonstrated that early recognition and early treatment should be instituted. Too often the advice of a competent physician is not sought and the dictum of the fishwife accepted—"who has seen many children just like this, just slow." "It would be all right later." Again, divine maternal love which sees no flaws in its own offspring, will not consent that there is aught the matter with her child.

In order that these cases may be discovered early, it is necessary to watch closely the physical and mental development of a young infant and to note the first signs of

probable backwardness. At three months a healthy infant should be able to hold up its head. At four to five months it should grasp and play with an object. At seven, to eight months (which is quite maximum) it should sit alone, if only for a few minutes. While previous illness, a malnutrition, or improper nutrition, may delay these functions, still such delay should always be examined into for cause, and if this were done more regularly, more cases of mental deficiency and spastic paralysis would be discovered during the first year of life.

Syphilis of the nervous system must be excluded, and blood Wassermanns alone are of no value, and while we realize that unfortunately there exists a vast deal of unrecognized congenital syphilis, yet on the other hand, it is highly probable that too often defective infants are dismissed as cerebral syphilis without the proper laboratory investigation having been made.

A spinal fluid Wassermann and other studies of the spinal fluid must be made in all cases in which nervous syphilis is suspected, and in order to exclude this disease, this complete study has been made in all our cases with the exception of a few in which it was not possible. At this juncture it will be well to state the surprising fact that we have found not more than five per cent positive spinal Wassermann.

It should be needless to remind that operative orthopedic cases are likewise to be excluded.

As routine procedure now and for months past, x-ray examinations of the Sella Turcica and surrounding structures have been made with a view to studying this body and excluding surgical conditions, standardizing dimensions in infants and young children as much as possible and noting irregularities. The work has proven of great value.

#### Case Reports.

BABY D, White-Male, Born Apr. 24, 1918-Seen Feb. 23, 1919, Georgia.

#### History.

Baby brought in today as a feeding case, is now ten months old. Has been fed almost exclusively on condensed milk. Had breast milk only a short time. **First** child, normal labor, few hours, no instruments.



No convulsive seizures first few days following birth. At two to three months began the peculiar nervous manifestations, many of which are described below. Has never been able to nurse from a nipple, fed with a spoon. Has never noticed objects nor smiled, nor played with a rattle or toy. Has not been able to grasp. Cannot sit alone, does not hold up head well. Child has been given much bromide and some chloral because of muscular spasm. No intercurrent illness. During all these months the excessive "nervous condition" supposed due to derangements of digestion and it was thought that child would improve if it could be fed cow's milk.

#### Family History.

Father acknowledges Lues history. Treated per modern methods, supposed cured. Two negative Wassermanns two years before marriage. Mother normal, negative history, second wife, no miscarriages.

#### Examination

Small pinched undernourished infant, ten pounds. Pale, flabby, very little flesh, dry skin. Fontanel open. Multiple tiny glands on throat and neck. Fine pin-point rash on parts of body. Skin rough, rather hairy on shoulders and over triceps. Hair on head rough, coarse and straight. Chest and abdominal organs negative. Baby is restless and rarely quiet, but the marked manifestations are during the act of eating. At this time there seems to be great difficulty in swallowing, which produces contortions and twists of the upper extremities, then the entire body becomes spastic. The head is twisted around at right angles, arms rigid, pronated, the right arm parallel with the body, the left arm extended at almost right angles and somewhat behind the body. The eyes rolled back, nystagmus and peculiar stranglinglike noises issuing from the mouth upon the attempt to swallow. Rarely succeeds in obtaining more than five and a half ounces, consuming a great deal of time, from one feeding almost to another. One would get the idea that the baby was objecting to and fighting his food, but not so, for upon close study it could be determined that he was hungry and was doing all he could to eat. The

spasticity extended to the muscles of deglutition; has a peculiar habit of popping his lips when not eating, and lolls tongue excessively.

#### Laboratory Report.

Blood Wassermann and spinal fluid Wassermann and other findings negative. Urine chemical and microscopical, negative.

#### Provisional Diagnosis.

An Endocrine, probable intra-uterine type, spastic diplegia. Probable both thyroid and pituitary inefficiency.

#### Treatment.

First, in order to eliminate any possible digestive cause, condensed milk was omitted, and baby placed on malted modified milk (so-called malt soup), begun skimmed, two per cent protein, five and a half ounce feedings, eight in twenty four hours. No trouble with digestion ensued. After a few days, it was seen that the stools were smooth, well digested, not excessive, no spitting or vomiting, no gas. Constant increase in formula gradually adding cream, demonstrated ability of baby to digest cow's milk, hence, threw out the question of digestion as having any bearing on the infant's condition.

Next in order to work out the Cretin association, placed on one tenth grain thyroid, t.i.d., gradually increased up to one fourth grain. Baby appeared to improve at once. Many of the symptoms enumerated becoming less marked, some ceasing. After a time the improvement appeared to have reached a point from which it did not advance and the nervousness apparently increased, or partially returned. The thyroid was omitted for a time, then resumed, pulse rate and sweating closely watched. The child however, did not progress beyond a certain stage. Shortly afterward, in spite of the negative Wassermann, decided to work out the effect of mercury. The baby was placed on iodine, five drops t.i.d. plus mercury with chalk one half grain t.i.d. No resultant benefit, stools excessive, treatment was discontinued. About this time the baby contracted ileo-colitis; was sick for several weeks during which time all treatment for nervous system omitted. Later, upon recovery, patient was placed on mixed

glandular treatment, in this case Harrower's antero-pituitary comp. one fourth capsule t.i.d. given as a powder. Improvement began immediately, as per following reports:

April 10, 1919—"The baby is doing nicely, now weighs eleven and a half pounds. Is taking his bottle quietly and naturally, nearly takes the six and a quarter ounces. The nervousness is almost gone, cries very little, sleeps better."

July 1, 1919—"Baby is better in some respects, bowel trouble is under control. We are now ready to begin the raw milk diet as you directed (a change from malt soup to raw milk). He does not sleep much at night, but the nerves are almost as quiet as ever."

July 8, 1919—"Baby stood trip to North Carolina fine. Likes to travel so well, slept nearly all the time."

July 15, 1919—"Very much pleased with baby's condition. Nerves better, more quiet and sleeps more. He notices things and movements about him. Smiles when we speak to him. Principal trouble now is getting him to sleep at night. Wants to be nursed. He is hungry and takes his food well."

July 24, 1919—"Now on one third of capsule t.i.d. Baby notices everything and grasps objects more. Also seems stronger in his body. Can turn himself almost over. Has a nervous spell occasionally, but nothing like as hard or as long as they were. Just seems restless at times. Lolling of tongue entirely stopped."

July 29, 1919—"Baby much stronger. Is good natured, sleeps more in twenty-four hours than he has been doing. Most of his restlessness is at night. To us does not seem nervous except occasionally has little nervous spells. Does not pop his lips or loll his tongue. Has much better use of himself, knows when a stranger takes him and notices everything."

Oct. 4, 1919—"Baby takes his new food very well (solid food had been ordered). Does not care for the peas, but takes everything else. Has gained one half pound in three weeks. Rests some better at night and is as quiet as can be during the day.

Has had no hard nervous spells since we saw you."

Oct. 22, 1919—"Have been using new diet and it is agreeing. Weighs a little over twelve and a half pounds, sleeps better and is good natured most of the time. Nerves seem more quiet than ever, occasional nervous spells."

Nov. 13, 1919—"Baby seems to be slowly improving. We can observe that he notices objects and people more than ever. Shows more temper when displeased. Muscular spasms much better, takes his milk quietly generally. Takes the solid food you prescribed, very well, and digests all right. Sleeps quietly on his bed from two to four hours during the day, but still does not sleep at night to any great extent without sedative. Holds his head up a little better, use of arms and feet improved, chewing and swallowing improved. Takes oatmeal, beef juice, potato, Cream of Wheat, very well. One half capsule t.i.d."

**Note:** (During the time covered by above reports, this patient had been seen several times and the reports verified in its constantly improved condition. The treatment had been constantly increased and the patient was last seen on April 20, 1920. A few days later it died at its home rather suddenly).

### Case 2.

BABY D—White-Female, Born May 4, 1918  
Seen June 4, 1919. Georgia.

### History.

Normal labor, few hours only, no extensive moulding, no convulsions or difficulties at birth. Sixth child, no miscarriages, other children healthy and well. Breast-fed; still nursing, will not take other food; feedings rather forced; does not swallow well. Child had appeared to be developing normally until six months. At this age had "flu" with whooping-cough. Subsequent to this attack has been noted an apathy, a dormancy and lack of interest in life. Does not notice objects, and although thirteen months old now, does not grasp or play with an object, cannot stand or walk, but can sit up.

### Family History.

Negative.

### Examination.

Fontanel normal for age. Body covered with fine rash. Saddle nose. Small undeveloped limbs, thin legs and arms. Heart, lungs, abdomen, negative. Child shows a peculiar nervous manifestation in constantly waving its hands. This however, an aimless motion and not the waving of delight and interest performed by a six month infant. The arms are not still a second; the eyes stare beyond you, very little intelligence conveyed, yet with the same stare will follow an object moved about. Impossible to attract attention beyond this, or attracted for a moment, cannot be held. Pupils normal. Patient cannot control fingers, no co-ordination of fingers; does not attempt to grasp a pencil, shows a type of wrist drop, and attempts to use the end of the radius instead of the hand. Knee jerk variable.

### Laboratory Reports.

Blood Wassermann negative; spinal Wassermann and other findings negative; urine negative.

### Provisional Diagnosis.

Opinion given that condition is congenital and did not arise from "flu;" that such disease having been a marked era in the child's life, parents had previously overlooked conditions and had become impressed with the attack as the beginning point of the child's nervous condition, and that "flu" occurring at six months was simply a coincidence, this being quite the common age at which defectiveness in mild cases may be first noted. Further opinion, that the saddle nose had no bearing and the case probably an Intra-uterine Endocrine.

### Treatment.

Placed on mixed glands B. W., gradually increasing doses.

### Reports.

Nov. 24, 1919—Nothing heard from above case until today. No reports made as instructed. Patient brought in for re-examination. When seen in the ante-room, awaiting consultation, the baby who in June could not hold a pencil in its hands, was tearing up strips of paper over the floor, smiling, playing and laughing. Parents sta-

ted that after two month's treatment, the child began to laugh and play, the eye stare improved, began to grasp objects, to show an interest in life and to take note of objects around. Treatment continued for about three months and omitted for past two months. No sensible reason given. Child's attention readily attracted now and held. Still a slight stare, more intelligence. Uses hands and fingers, grasps and plays with objects, can stand, can push itself about, but cannot yet walk, and as parents state "eats all she can get." Treatment advised continued, pushed for probably 12 months.

Jan. 9, 1920—"Baby is improving very fast."

Feb. 10, 1920—"We think baby is improving rapidly. She has better use of herself and notices things more, but she cannot stand alone, or walk yet.

Mar. 20, 1920—Patient in for examination. Marked improvement in all symptoms, physical and mental. Has gained in weight. Stare hardly noticeable unless closely looked for. Laughs and plays, grasps objects has a grip above normal, so that a pencil can now hardly be taken away. Receives an object normally with apparently perfect use of fingers, hands and arms. Sat on father's knee enjoying herself, whirling around a heavy revolving office chair and reaching forward could pull the chair over. Increased strength in legs and now beginning to attempt to walk.

### Case 3.

BABY S—White-Female, Born Sept. 22, 1917  
Seen Aug. 21, 1919. Georgia.

### History

Girl, first child, young mother. The early history of this case is well known to the author, having been called in consultation during the first two days of life. Child was delivered at a private sanitarium, labor prolonged, no instruments, no excessive moulding and apparently, no cause or the after troubles. However, attending physician called for consultation on second or third day for the reason that the child had refused to nurse and had undergone a series of slight convulsive seizures extending over period of forty-eight hours. Between the seizures, in-



fant lay dormant, more or less stupor. Examination at the time revealed nothing abnormal, not even pupils, with the exception of very small anterior fontanel. Very guarded prognosis was given as to future and opinion rendered that failure to nurse was due to parayysis of mouth muscles and case was probably cerebral. However, operation not advised, but the child be watched and reported on at three, six, and twelve months. Function was restored in a few days and baby appeared normal. Received indirect reports at three, six, and twelve months that the baby continued normal. This however was hearsay, case having not been seen by attending physician.

Today, Aug. 21, 1919, at twenty-three months, child was brought in for late walking and talking, and a mere glance is sufficient to show the typical spastic case. One wonders how any ordinary layman could have thought this child normal all this time and so report. Parents lived sixty miles out of Atlanta. Child has not walked or talked, can hardly stand, has not played with objects or toys, cannot grasp objects save with difficulty, and etc., the general history of all these cases, both mental and physical.

#### Examination.

Child well developed, well nourished, has been breast-fed, no rickets. Fontanel closed, age of closure not obtainable. Not microcephalic. Nystagmus lateral and rotary. Wrist drop. Incoordination of fingers. Grasps objects very poorly; holds the object very poorly, again the use of the end of the radius. Eye expresses very little intelligence, cannot stand well, cannot walk at all. Chest, abdomen and heart negative.

#### Laboratory Report

Spinal fluid Wassermann negative. Globulins not increased. Cell count 3.

#### Provisional Diagnosis.

Disordered Internal Secretions.

#### Treatment.

Mixed glandular treatment advised for indefinite period of time.

#### Reports.

Oct. 7, 1919—"Began treatment Sept. 13. Some delay in obtaining medicine. Child has improved wonderfully for last ten days, especially in use of her limbs. She can steady

herself so much better. She has walked as far as ten feet by herself, but in order to walk alone, must hold her head down and not move it; if she does, she becomes unbalanced. Doesn't try to talk much, can say words when she tries; does not try often."

Nov. 12, 1919—"Two things in which there is noticeable improvement. One—when sitting on the floor she has learned to use her arms to prevent falling when she wishes to lie down. The other—she has learned to crawl. She had never crawled an inch until about three weeks ago. She can now crawl across the room. Walking seems to be about the same, probably her step is just a little more steady than at last report."

Dec. 9, 1919—"Only one marked improvement this month—she has learned to raise up while lying on the floor and to use both hands to help her get up."

Jan. 8, 1920—"Baby walks better, can steady herself better, she has gradually improved in this since September."

Mar. 10, 1920—"Baby has recently learned to say about six words and tries to talk more than before."

#### Conclusions.

1. Many cases showing mental and physical deficiencies and birth paralysis are due to disordered secretions of the ductless glands.

2. No case showing mental or physical deficiency should be dismissed as hopeless until it has been definitely established that it does not belong to this group.

3. It is probable that few, if any, infants who survive have been permanently injured at birth.

4. Early recognition followed by early and thorough treatment is necessary if the best results are to be obtained.

5. X-Ray studies of the sella turcica, and complete study of the spinal fluid, including Wassermann, are invaluable in the differential diagnosis, since surgical conditions, e. g., pituitary tumors, etc., and syphilis must be excluded.

#### DISCUSSION, DR. L. B. CLARKE'S PAPER.

*Dr. W. A. Mulherin.*—Dr. Clarke's subject is a timely and very important one. His results are excellent. A great deal of commendable and inten-

sive work is being done in the field of endocrinology. Great promise of hitherto unexplained symptoms, and future effective treatment may be expected from this source.

From present knowledge, however, we are not warranted in claiming too much for polyglandular therapy. It is true we know certain definite facts, for instance, cretinism, caused by defective secretion of the thyroid gland. Again, Graves' disease, or exophthalmic goitre, due to over-activity of the thyroid gland, and hyperthyroidism, due to a slightly less over activity of the thyroid.

Our present knowledge also warrants us in mentioning status lymphaticus, manifesting itself as a clinical entity, with convulsions and attacks of asphyxiation, due to enlarged thymus. Likewise, disturbance of the pituitary gland rarely causes acromegaly. Tumors in this gland, or its neighborhood, frequently give rise to "Frohlich's syndrome," adiposity, delayed sexual development, greater tolerance for sugar, and mental dullness. Also it is claimed that involvement of the pineal gland, such as tumors, causes precocious sexual development; but it has been recently found that disturbance of the adrenal gland causes this development more frequently than involvement of the pineal gland.

There are a few facts, however, that should be considered, and they are that animal experimentation frequently does not show involvement of these glands, when autopsies are performed, even though the clinical picture does exist. Therefore the explanations of these clinical manifestations have to be assumed to rest on a functional basis, that is, some disturbance of its functions, rather than on direct pathological findings, as an autopsy frequently shows nothing, or, an occasional tumor.

It is also well to remember that we do not know much about the normal functioning of the internal secreting glands, and in consequence our knowledge is very indefinite. It is therefore not logical, individually or collectively to say emphatically that such symptoms are caused by some pathological process located in the endocrines.

As regards polyglandular therapy, it is to-day, I believe, experimental. There is a strong tendency to use glandular extracts and, personally, I believe the pendulum has swung too far. I do not wish to convey the impression that I am opposed to experiments along these lines, but rather to advocate conservatism. There is one reassuring fact in glandular therapy, and it is that, as far as we know, it does no harm when given by mouth.

I wish to congratulate Dr. Clarke upon his very excellent and instructive paper, and believe it will do great good, stimulating active thought and effective work along this very fertile field.

### REMOVAL OF FOREIGN BODIES FROM THE OESOPHAGUS AND BRONCHIAL TREE.\*

By G. D. Ayer, M.D., and J. H. Buff, M.D.,  
Atlanta, Ga.

During the past few years Bronchoscopy and Oesophagoscopy have become more useful as an aid in the diagnosis of certain conditions of these parts and the removal of

foreign bodies from the oesophagus and bronchial tree.

Until recent years all these procedures were done under a general anaesthetic and with a large mortality, but at this time the mortality has been reduced to a minimum, it being less than one per cent. The cause of this great reduction is that general anaesthesia has been dispensed with and the only anaesthesia we use now in adults is a local application of a twenty per cent solution of cocaine, applied to the glottis and vocal cords. **Except** in certain cases, such as sharp pointed bodies penetrating the mucosa, and in these cases the reason it is used is that there is much pain when removal is attempted.

General anaesthesia should never be used to overcome the faulty technique of the operator, as it only makes the dangers of a pneumonia greater than would be without the anaesthesia; and we have found there is very little pain accompanying the ordinary removal of foreign bodies. Should a pneumonia be present at the time of removal, it would only increase the liability of it extending to another lobe or to it terminating into an abscess.

We consider the X-Ray examination one of our most important aids in the localization of certain foreign bodies and, as we all know any metallic substance casts a dense shadow, we insist on the X-Ray examination in **all** cases, although there are more foreign bodies which do not cast shadows than those that do.

The X-Ray also helps in the diagnosis of the damming back of secretions and pneumonia, which so frequently follows aspirations of foreign bodies. Examination of every chest is most essential, in that we can tell to a certain degree the location and the amount of obstruction that the body is causing, as in **almost every** case there are some physical signs, the most common is a wheezing whistling over this area, and should a pneumonia be starting we have the same physical signs and symptoms as those of ordinary pneumonia, (although a foreign body may be present without any signs or symptoms whatever). Should the body be

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



Coin in right bronchus.



Jackstone in oesophagus.

in the oesophagus we would have none of the pulmonary signs and symptoms, but the patient would regurgitate, wretch and vomit at first, unless the oesophagus were entirely occluded. If not entirely occluded later the wretching and regurgitating would stop and he would have a sense of discomfort and an impairment in swallowing.

We have found that in the preparation of the patient, morphia is contra-indicated, as it makes the patient more nervous and a great majority of these patients will have a tendency to vomit. It is especially dangerous in small children and it is in these that most foreign bodies are found.

Atropine in large doses is given to a great advantage. We have used it for the past year and have found it facilitates the removal, in that it dries up the secretions, thereby enabling the operator to see his way and to work with greater speed.

The operation should consume as short a period of time as possible, as the patient becomes exhausted, and with an exhausted patient sudden death from stimulation of the pneumogastric is much more liable.

Unless the patient be in too much dyspnoea it is better to put him to bed, perfectly quiet for a few hours, to allow rest and to quiet the nervous condition, as all these patients are highly excited and need the rest.

Before taking up the individual cases, would like to state that the **direct method** was used in these cases. In laryngeal operations and dilations, (especially those of the oesophagus) the indirect method can not be **too strongly condemned**. Too much stress cannot be laid on the aseptic conditions under which the operation must be done, although the field for operation cannot be made sterile; but it has been proved that a patient will not easily become infected in these parts from the organisms already present, **but** they **will** be easily infected from organisms from other parts. The rules of asepsis are preserved the same as if a laparotomy were to be done.

Instructions to the patient will help considerably. Should he be an adult he is told of what will happen and made to understand what is expected of him and that he will feel a tickling sensation and have a desire to cough but this must be suppressed as much as possible. The patient must not hold himself rigid, for if this happens it limits the movement. He is then placed on a table in the recumbent position with the chin elevated.

Should the patient be a child he is wrapped in a sheet with his hands pinned to his side, so as not to interfere with the operator. The





Quarter in oesophagus.



Pin in oesophagus.

assistant then places the child on the table with the chin elevated. The assistant (standing on the left side of the patient) then passes the right arm under the neck and upper part of the thorax. (On his middle finger is placed a biting block thimble so as to hold the teeth apart and prevent the child from chewing the bronchoscope). The left hand is then placed around the head and the chin elevated to the position desired.

With the patient in this position the Laryngoscope is inserted and we prefer passing the scope down the midline of the tongue, until the epiglottis is reached; instead of to one side as some operators prefer. The spatula end of the scope is then lowered and placed under the epiglottis, then raised so as to bring the arytenoids and the vocal cords into view. (If the patient be an adult the Rima Glottis and the vocal cords are painted with a 20 per cent solution of cocaine). The proper size bronchoscope is then selected and passed down the laryngoscope through the vocal cords and into the trachea. The laryngoscope is then removed by first removing the slide in the laryngoscope and shifting the bronchoscope over to one side so as to remove tension on the scope against the teeth.

The bronchoscope is passed into the air passages in which the foreign body has been previously located if possible, by means of the X-Ray.

A well trained assistant is most essential in that he will see that the head is so held that the trachea will be in line as the bronchoscope is introduced, and that at all times the second assistant should busy himself during the exploration of the bronchial tree, seeing that the laryngeal fulcrum is eased off so as to prevent two very important things from occurring; eg. limitation of the exploration of the tracheo-bronchial tree and subglottic oedema, as cited in case one as too much pressure on the larynx will cause a certain amount of trauma and, if very great, will certainly be followed by oedema.

Should the bronchoscope be pushed forward it would pass into the right bronchus owing to the morphological anatomy, in that the right bronchus is a continuation of the trachea. However, we should not enter the right bronchus until the *carina* has been identified and to do so the lip of the scope is turned to the right and then gently passed down the trachea. This will expose the left main bronchus and between the left main bronchus and the right bronchus lies the carina, and to enter the right the patient's head is moved over to the left and right lateral pressure made on the tip of the scope and it enters the bronchus with ease.

Should the foreign body be brought into view in the tracheo-bronchial tree, the great tendency is to grasp it without studying the

surroundings which should not be done. The nearest end of the object should be sought and the most suitable forceps selected to hold down into the bronchial tube, as this makes removal more difficult.

The patient usually feels the body as soon as it is grasped and becomes excited, then tries to cough and it is at this time that many bodies are lost. Should the body be a metallic substance, (such as coin) by pulling it up against the scope it will make a metallic ring and in this way we are sure we have the body in the forceps. The body and the scope are then removed.

Should the body be of long standing one would expect to find the bronchi almost, if not entirely, occluded by granulomatous tissue and corrosion of the body. Should this be the case removal is much more difficult as he will have to stop and remove the granuloma and then stop the bleeding. After removal the patient is placed in bed and allowed to rest so as to prevent sub-glottic oedema or pneumonia.

Should the body be in the oesophagus the previous procedure is carried out and the technique is the same, **except**, that the oesophagoscope is introduced into the oesophagus and great care must be taken not to pass by the foreign body in the Cricopharyngeal constriction, and after passing this constriction the next place in the oesophagus one is liable to overlook it, is in the Pyriform sinuses.

Foreign bodies in the oesophagus are more fatal than those in the bronchi, if sharp-pointed, as the wall of the oesophagus is much thinner and penetration causes death from within a few minutes to several weeks. With aneurysm of the aorta care should be taken not to rupture this vessel.

#### Case I.

Baby J., age 14 months, referred by Dr. W.

Child well nourished and very healthy, previous history of no importance. While playing with a butter bean hull on April 1st, 1920, began coughing and later turned blue and vomited, which alarmed the mother and

she noticed that the child was making a wheezing noise when it breathed. This wheezing continued and the child had coughing spells at intervals. The next day the child was brought to our office and at this time all that was noted was a wheezing sound over the right side of the chest. X-Ray was made and this proved negative. Bronchoscopic examination was advised and upon examination of the right bronchus a small piece of butter bean hull was seen and grasped with the forceps and removed. The piece of hull was only 2 centimeters long.

During the passage of the bronchoscope there was a great tension placed on the vocal cords and sub-glottic oedema was predicted. The operator's diagnosis as to the outcome was correct, for within the next few hours the child began having dyspnoea and cyanosis. An intubation tube was placed in the larynx, which cleared up the cyanosis and dyspnoea immediately. (This intubation for sub-glottic oedema we wish to condemn in the beginning but at the time the tube was placed in we had neglected to obtain a number one tracheotomy tube). This was removed the following day but on account of the renewal of the dyspnoea it was replaced.

April 8th.

A number one tracheotomy tube had been obtained and a low tracheotomy was performed under local anaesthesia; a 1 per cent solution of novocaine being used. The intubation tube was then removed.

April 12th.

Patient breathing normal. Temperature and pulse normal. Weight about the same as before the operation. Incision in the neck entirely healed.

Case 2.

Child, age three years. Referred by Dr. W.

While playing with corn in its mouth the child became strangled and the mother noticed she began to turn blue and could not get her breath. In an effort to clear **this** up the mother ran her finger down the child's throat, thereby causing the child to vomit.

The dyspnoea became worse and the child was taken to a hospital where a tracheotomy was advised by the house surgeon at the hospital. However, this was not consented to and in the mean time the mother continued to put her finger down the child's throat, which caused it to bleed.

Nine hours after the aspiration of the corn we were called in to see case and advised a bronchoscopic examination. This was immediately made and the arytenoids were found to be congested and swollen. The mucous membranes of the throat were bleeding so profusely that the examination had to be stopped until a later date.

April 17th.

Two days after admission another examination was attempted and the piece of corn was removed, being found in the right bronchus, which was entirely blocked off by the oedema of the mucous membrane and the swelling of the piece of corn. At this time the child had a pneumonia of the right lower lobe with a temperature of 101, pulse 140 and respiration 44.

The pneumonia continued for five days. Temperature, pulse, and respiration gradually dropped to normal and the patient went home.

This demonstrates that the pneumonia was caused by the foreign body and not by the examination.

Case 3.

John B., Age 22 years.

While holding a coin in his mouth January 8th, 1919, was hit in the side by his fellow man, which caused inspiration and the coin was drawn into the larynx. Two days later he developed a pneumonia which ran the ordinary course, lasting about two weeks and then ended by crisis. After having this pneumonia he had frequent coughing spells and at times would notice a wheezing sound in the chest but when he coughed this would stop.

This condition continued until the latter part of March of this year and he had a second attack of pneumonia but cleared up after two weeks.

October 8th, 1919, Dr. Buff saw this patient

and advised an X-Ray which showed the coin in the right bronchus, and advised removal.

Coin was removed by the direct method, using the Jackson scopes and suction. The coin was found corroded, almost completely occluding the right bronchus but there was no granulomatous tissue. Time required was three minutes.

October 15th, ten months after the aspiration, patient was discharged from the hospital in good condition.

Case 4.

Ruth F., age 4 years.

Mother noticed that the child while playing with a twenty-five cent piece, strangled and became cyanotic, but soon recovered. After a short while began vomiting and continued to have intermittent spells of vomiting until the foreign body was removed.

The child was taken to the family physician who discouraged the idea of a foreign body being in the oesophagus, but the mother insisted that the foreign body was still in the throat.

An X-Ray was made December 1st, 1919, which showed the coin at the crico-pharyngeal constriction, and an attempt was made to remove it by the indirect method, under a general anaesthetic, which proved a failure.

I was called in consultation December 3, seven months after swallowing the coin and two days after the previous attempt to remove by the indirect method. Child was poorly nourished and anaemic on account of frequent vomiting.

A second X-Ray was made which proved positive also and removal by the direct method advised, which was done under a general anaesthesia and the coin found at the Crico-Pharyngeal constriction of the oesophagus. Time required for the removal was three minutes. The child was allowed to go home the next day, apparently in good health, with all the vomiting stopped and could swallow food without difficulty.

The general anaesthesia was given in this case on account of the foreign body being in the oesophagus for so long a time and the pneumonia from foreign bodies in the oesophagus being being minimized. Pain



was predicted that would be too great without an anaesthetic on account of the length of time the body had remained in the oesophagus.

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**EXTRACTION OF FOREIGN BODIES  
FROM TRACHEA, BRONCHI AND  
ESOPHAGUS. REPORT OF  
TEN CASES IN DETAIL.\***

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C. L. Pennington, M.D., Macon, Ga.

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**Case No. 1.**

Jack Hinson, age six years, 871 Dak St., Macon, Ga. December 30th, 1919.

Referred by Dr. C. C. Harrold, Macon, Ga.

The mother gave the following history: On the morning of December the 27th, the child was playing with a ring of hers which suddenly disappeared and the child began to cough, was nauseated and complained of considerable pain down in his throat, also spitting up bloody mucous. He then told his mother that he had swallowed her ring. He was immediately carried to William's Private Sanatorium and there they located Dr. Harrold who passed an esophageal bougie in hopes to push the ring into the stomach, but evidently the bougie passed directly through the ring and no results were obtained. Three days later, I was called in and the following symptoms were present:

Pain, dysphagia, dyspnoea, cough and a partial obstruction with the passage of a small amount of liquid.

Advised X-Ray picture, but was unable to obtain one, so I decided to send him to the operating room where I could pass the esophagoscope and make an inspection of the esophagus.

Patient was placed upon the operating table, pinned in a sheet, mouth gag placed, and no anesthetic given. Esophagoscopy was performed and at the junction of the middle and upper third of the esophagus ring was located which contained musous and food around it and was discolored. After removal of mucous and food, the ring was plainly seen and was grasped with forceps and esophagoscope, ring and forceps were

all removed at one time on account of size of object which I was unable to bring through the tube. Patient was given ten grains of bismuth subnitrate t. i. d. on account of trauma which was produced by the sharp corner of the ring.

Patient was discharged from hospital on the same day. Reported to my office one week later for final inspection.

Discharged in good condition.

**Case No. 2.**

Mary McGee, age 18 months, Forsyth, Ga. April 8th, 1920.

Referred by Dr. Guy Williams, Forsyth, Ga.

The history as given by the mother: She had given the child some pecans to eat and just a few minutes later the child became blue in the face and was coughing. She paid no particular attention to this at the time, but about every two or three hours, she would have a spasmodic cough which would last about ten minutes and would get blue in the face and at times could not catch her breath. After twenty-four hours, she decided that she would consult her family physician who made a careful examination and decided that the child evidently had a foreign body in the right lung. He then referred the case to me.

The patient was placed in the hospital, temperature 100, pulse 160, respiration 60, with spasmodic cough which was probably due to the foreign body being moved around or change in the position of the foreign body, or it being coughed up against the under surface of the glottis, making a very characteristic sound which could be easily recognized as a foreign body. Percussion revealed dullness, numerous moist rales were heard over the entire lung, broncho vascular breathing, both inspiration and expiration prolonged, intercostal spaces were all plainly visible.

X-Ray taken which was negative, so I had the child sent to the operating room, placed on table and rolled in a sheet and without any anesthetic, I did an exploratory bronchoscopy which in looking over the right upper bronchus of the right lobe of the right

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\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

lung there was no evidence of a foreign body, but on looking into the right middle bronchus of the right lung, I found a small piece of the meat of a pecan which was grasped with forceps and removed.

Patient continued to run a temperature of about 100 for five or six days and then she was discharged from the hospital in good condition.

#### Case No. 3.

Nara McCall, age 3½ years, Pitts, Ga. March 19, 1920.

Referred by Dr. Elliott, of Cordele, Ga.

History as given by the Mother: The child had been blowing a whistle and suddenly it slipped down into his throat and he coughed once or twice. He went running into the house and told his mother that he had swallowed the whistle, so they consulted their family physician the following afternoon and he advised them to give him a little bread and water to see if that would not force it down into his stomach. This was done and no results were obtained. He had an X-Ray picture made and found the whistle in the middle third of the esophagus, so he referred him to me.

Patient was placed in the hospital and the following symptoms were present: A complete inability to swallow even water, and after localization of foreign body by X-Ray, diagnosis was positive that the foreign body was in esophagus.

Patient was placed upon the operating table, without any anesthetic, esophagoscope was introduced and the whistle was located in the middle third of the esophagus, but considerable amount of mucous and food had sealed over the opening of the whistle and had prevented any liquids from entering the stomach. I placed a Jackson Suction Tube down the esophagoscope removing the mucous and food and unstopping the opening in the center of the whistle, thereby seizing with forceps and removing the esophagoscope, forceps and whistle.

Child discharged from the hospital the following day. Condition good.

#### Case Na. 4.

Roberson, Victoria, age 7 years, Milan, Ga. February 13, 1920.

Referred by Dr. Bond, McRae, Ga.

The following history was given by Mother: The child was out in the corn crib helping her shell corn and he had two or three grains of corn in his mouth and on aspiration one went down in the windpipe. He began to cough and turn blue and could not get his breath, so she caught him and shook him and slapped him in the back and he said that he had swallowed a grain of corn that he had in his mouth. Immediately her family physician was called and he advised her to bring the child to see me.

The following symptoms were present: Spasmodic cough, dyspnea, wheezing, a few moist rales over right lung, exaggerated breath sounds of lower lobe of right lung, intercostal spaces of right side retracted, during violent coughing spells patient would become cyanotic, any attempt to talk could scarcely be heard above a whisper.

Patient was sent immediately to the hospital, placed upon the operating table and without an anesthetic an exploratory bronchoscopy was done. After introducing the bronchoscope, looking over left lung then back over to the right, I located the grain of corn at the bifurcation of the upper right and the middle right bronchus of the right lung. Grain of corn was seized with grasping forceps and removed through tube.

Patient discharged from hospital five days later.

#### Case No. 5.

Arthur Calhoun, age 6 years, Seville, Ga. September 18th, 1918.

Referred by Dr. T. E. Bradley, Cordele, Ga.

Father gave the following history: Son was playing with a shoe hook in his mouth and as he ran it was aspirated down into the windpipe. He suddenly turned blue and began to cough and looked as if he would choke to death. He continued to have smothering spells about every two or three hours, so he was carried to Dr. Bradley who referred him to me.

X-Ray picture was made and showed the shoe hook under the sixth rib at the bifurcation of the right bronchus to the right middle lobe.

The following symptoms were present: Dyspnea, Spasmodic cough, respiration very

labored, cough of ringing character, moist rales over lung area of both sides, bronchovascular breathing over lower lobe of right lung, intercostal spaces of both sides retracted, percussion over both lungs revealed numerous dull areas.

The child was placed in the hospital and routine preparation for bronchoscopy was made. Patient was placed in a sheet on operating table, bronchoscope introduced without anesthetic, shoe hook located at bifurcation of lower right bronchus and middle right bronchus. Seized and removed with grasping forceps through bronchoscope.

Discharged from the hospital the following day in good condition.

Case No. 6.

Folks Phillip, age 18 months, Jeffersonville, Ga. April 10, 1920.

Referred by Dr. T. S. Jones, Jeffersonville, Ga.

The following history was given: The Baby was playing with a button which had come off of its father's overalls. Nothing unusual was noticed until the mother gave him some milk to drink which was some few hours later and the child could only retain two or three swallows, then he would have a regurgitation. This continued for twenty-four hours, when she became alarmed and consulted her physician who referred the case to me.

The same day the following symptoms were present: A complete inability to swallow water, unable to sit up in a chair, color very sallow, skin dry and harsh, and pulse very rapid.

Advised X-Ray which was taken and fluoroscopic examination was also made which showed the button to be at the junction of the middle and upper third of the esophagus.

Patient was rolled up in a sheet, placed upon the operating table, mouth gag placed, no anesthetic used. Esophagoscope was introduced, button located and seized with grasping forceps. At the first attempt forceps slipped off in trying to get the button in the esophagoscope. Finally I got a firm hold of the button, removed esophagoscope, forceps and button at the same time.

The child was discharged from the hospital on the same day in good condition. Reported to my office four days later. Discharged.

Case No. 7.

Cordie Parkerson, age 3 years, Eastman, Ga. December 10, 1918.

Dr. Weaver.

Unable to obtain history other than child was playing with some shelled corn in a bucket and sometime later the mother noticed that it had developed a sudden cough and was having difficult and labored breathing, so she consulted her family physician and he advised her to come to Macon and the case was referred to me.

The following symptoms were present: cough, dyspnea, exaggerated or labored breathing, occasional very violent coughing spells and at times very cyanotic.

Patient was immediately sent to the Hospital and placed upon operating table without anesthetic an exploratory bronchoscopy was done. Looking over the right lung, the grain of corn was located in the right bronchus of the right middle lobe which was seized with grasping forceps and removed through the tube.

Patient was discharged from Hospital later in good condition.

Case No. 8.

B. Wilson, age 1 year, Macon City Hospital, Macon, Ga. December 31, 1919.

Referred by Dr. O. R. Thompson, Macon, Ga.

Unable to obtain any history from mother other than an inability to nurse or retain water. Carried to the hospital.

Later X-Ray picture was made which showed a coin in the upper third of the esophagus.

Patient was placed upon the operating table, rolled in a sheet, esophagoscope introduced, penny located just above the junction of the middle and upper third of the esophagus. It was seized with forceps and esophagoscope, forceps and coin were removed at the same time.

Discharged from the hospital the same day. Condition good.



## Case No. 9.

William Lee Matthews, age  $11\frac{1}{4}$  years, Chula, Ga. November 30, 1917.

Referred by Dr. Fort, Tifton, Ga.

The following history was given: Baby was playing with a sweet potato and evidently bit a small piece off, for the first thing the mother noticed the child was coughing and could not catch his breath. She said she could not imagine just what had happened, so upon examination of the sweet potato she found that a small piece had presumably been bitten out. The child apparently had no further trouble for five or six hours then suddenly he became blue in the face and after twenty-four hours she became alarmed and decided to consult her physician who referred her to me.

The child was placed in the hospital and the following symptoms were present: Temperature 99.2, pulse 140, respiration 48, spasmodic cough, patient cyanotic at times. On palpation of chest when patient was coughing a sudden snap could be felt over reion of trachea. X-Ray taken, which was negative. Patient was prepared and sent to operating room and an exploratory bronchoscopy was done, at the bifurcation of the right and left bronchial tree a small partiele of potato which was about four milimeters in width and twelve milimeters in length was discovered. Seized with grasping forceps and removed.

Patient discharged from the hospital the following day. Reported back to my office later in good condition.

## Case No. 10.

G. Kelly, age 14 months. Cordele, Ga. April 15, 1920.

Referred by Dr. T. E. Bradley, Cordele, Ga.

The following history was given by the Mother: She said she was shelling peanuts to plant and had several basins sitting around on the floor full of the shelled peanuts. She did not notice anything unusual about the child until suddenly it began to cough and lose its breath and have coughing spells every few minutes, so she decided after two or three days that she would have a physi-

cian to see it. They carried the child to Dr. Bradley who made a probable diagnosis of a peanut in the right bronchus. He referred the patient to me.

Symptoms present as follows: Temperature 102, pulse 170, respiration 64, dyspnea, cough, child presented symptoms of severe shock, intercostal spaces of both sides very retracted. Over the entire chest could be heard moist rales, percussion over both lungs revealed several areas of dullness, upon auscultation numerous areas of bronchial breathing found.

Patient was placed upon the operating table and an exploratory bronchoscopy was done and one fourth of the meat of a peanut was removed from the right bronchus of the lower lobe by seizing with grasping forceps and removing through the bronchoscope.

The child was discharged from the hospital seven days later. Am unable to state about recovery.

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DISCUSSION ON THE PAPERS OF DRS. G. D. AYER AND C. L. PENNINGTON.

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*Dr. A. G. Fort, Atlanta.*—These papers are of such interest and so important that I feel they should not be passed without some discussion. There are two schools relative to anesthesia in the removal of foreign bodies from the trachea and from the esophagus. The school at which I was taught favored general anesthesia. If you saw a poor individual suffering from the introduction of a bronchoscope of tracheoscope under local anesthesia, you would feel in lined to wish you had given a general anesthetic. In cases of pneumonia I might resort to local anesthesia for the removal of a foreign body. In cases in which there is no pneumonia, we proceed to give them ether and to do the direct bronchoscopic method, find the foreign body and remove it as best we can. In a case of foreign body it is well and we should have an X-Ray made to find the object, to know where it is, but your X-Ray should be made immediately before you have proceeded with your instrumentation. If it is not, you will not find the object where you expected it.

I was present on two occasions where a foreign body was about to be removed from the esophagus; one was my own case, and the other was a case of a friend. An X-Ray has been made in the morning, and we thought we could go right in and get the foreign body. We went in and there was no foreign body to be found. It must have proceeded on down the esophagus into the stomach and passed out through the natural route. Those were the two points I wish to especially bring out, one that a local or general anesthetic can be used, and the other the X-Ray examination should be made immediately preceding your instrumentation.

*Dr. G. D. Ayer, Atlanta, (closing the discussion on his part.)*

General anesthesia will not cause as much discomfort as getting the patient under the anesthetic.

After you have given a child a local anesthetic he will not struggle any more in passing a bronchoscope in to the lung. General anesthesia gives a great percentage of pneumonia. You take a child, for instance, with pneumonia, with a corn in the right bronchus, you could not remove that under general anesthesia. You have got to do it without anesthesia.

Another thing I would like to call attention to is that many children swallow peanuts. This is a little off the subject, but I am going to mention it. A good many of these children suffer from what is called peanut bronchitis. A peanut or the shell on the peanut produces a violent bronchitis in children, so much so that if they swallow a lot of these and you look down the lung with the bronchoscope, you think the child has diphtheria. He has a white coating over it because the child has a violent bronchitis. The fact that the child has inhaled a peanut is no indication that he has a foreign body there. You must be guarded, especially with peanuts, on account of peanut bronchitis.

*Dr. C. L. Pennington, Macon, (closing the discussion.)*

Dr. Ayer has said what I was going to say. Dr. Fort referred to giving a general anesthetic in these cases. I really think that when he speaks against local anesthesia the trouble he gets is largely due to faulty technic or to imperfect preparation of the patient. In the first place, it is very essential to have these patients in a hospital where they can receive the most careful attention. We naturally expect with a general anesthetic, with a foreign body in the esophagus to have the X-Ray made before resorting to instrumentation. Of course, under a general anesthetic we do not expect to find a small foreign body in the esophagus because the patient is relaxed and the object slips into the stomach and is not found in the esophagus.

I think Dr. Jackson could readily convince Dr. Fort that it is almost a criminal procedure to continue to give a patient a general anesthetic with brouchial irritation.

### BURNS—A CASE REPORT.\*

H. C. Whelehel, M.D., Douglas, Ga.

There is perhaps no more frightful accident, than a severe burn of large area. It is one of the many traumatisms, that we are frequently confronted with, and one that taxes our skill to make the patient comfortable and to do only that which will aid nature in repairing the injury.

The intense suffering of the patient and, in ease of recovery, the hideous deformity left, renders these accidents peculiarly distressing. In spite of all our pastes, powders, salves, solutions and open air, the mortality in burns involving more than one third of the body surface is nearly 100% (per cent), and in many cases the agony of redressing the wounds is so great as to lead physician

and patient alike to pray for a merciful termination by death.

Burns are classified by Hebra into three degrees, first, second, and third. By later classification and I think better, into two, because frequently, we cannot differentiate the first and second degree burns.

A burn is always a serious injury, in view of the resulting shock, and the action of poisonous substances arising from the burned skin. In burns of the first and second degree there is a inflammatory reaction of the skin, while in the third degree there is a primary necrosis.

Although a second degree burn is not so dangerous, yet depending upon the extent, plus the age of the patient, it may have fatal results, hence we should give a guarded prognosis. In the third degree burns, the skin has been disorganized, and when burned to such a degree by flames, it appears dark brown, and dry like leather; when burned by steam at high pressure, it looks white like marble, hard and insensible to touch.

After a severe burn, the patients as a rule do not void urine and when they do it is scanty and contains either blood, or a quantity of albumin.

Again we see severe burns in which we would pronounce a fatal ending in a few hours or days, when the family would be utterly astonished, when they look at the skin, and fail to see blisters, or injuries, they could not understand that it was a serious case.

#### Treatment.

In general we can state that the best treatment is that which favors the sloughing of the burned skin, which maintains the sterility of the resulting wound, and promotes granulations, and the newly forming epidermis.

The treatment of burns by forcibly removing the burned skin and deep blisters is risky, unnecessary, and will not accomplish the purpose. Although you may do this operation under an anesthetic, and follow it by an injection of morphine, you are adding to the primary shock, and the patient may not recover from it. Time will separate the burned from the non-burned tissues. Even in the second degree burns when large blisters



are formed, it is better to puncture the blisters in several places, and express the contents, leaving the old epidermis for some time to cover and protect the underlying denuded skin. In third degree burns, the elimination of the eschar begins between the third and fifth day. An inflammatory process starts around the eschar by way of a groove which separates it from the healthy tissue. As sloughing progresses, the eschar is at times held by shreds, which should not be removed by force, but with thumb forceps and scissors. In this way we avoid pain, and still better, the bleeding. When the blood vessels are broken the door is open for infections. Nature removes the burned from the healthy tissue and it is better that we help this process, than to disturb it.

### To Combat Shock.

For drugs, adrenalin, cautiously administered, will give us best results. To assist nature to drive the blood out from the abdomen, give drinks, and enemata of cold normal saline solution, which add volume to the circulating fluids; rub the hands and feet, and apply local warmth to the extremities.

To counteract the fall in the body temperature, use the hot bath, and maintain high temperature in the room.

Finally, in order to add more fluid to supply the heart with something to work on use saline transfusion, or hypodermoclysis.

Sedatives are given to relieve pain, morphine hypodermically, most satisfactory.

On the local treatment of burns there is an open field for the writing of a book on "old and useful remedies which have been forgotten" and on the present day each writer has a remedy satisfactory to himself, but different from others.

### Case Report.

Annie C., age 4 years, was playing in the yard, where a fire was burning around a kettle, for boiling water.

From some cause she fell, her left side coming in contact with the burning wood. Her mother being some twenty yards away, did not reach her until her clothing was aflame. I saw her about one hour later. The burn extended from the middle of the left leg, up

the thigh, the gluteal regions, side, and left arm, covering about one fifth or one fourth of body surface.

Patient suffering severely, from pain and nervousness, but mild shock. Gave hypodermic morphine to relieve pain and nervousness. Then cleaning wound of burned clothing, skin, and tissue, so much as could be without giving patient too much pain. Then applied a sterile gauze compress, moistened with a solution of aluminum acetate of three to four per cent. After a short time the pain was relieved, and the little patient seemed comfortable.

On the following day, I could removed more of the charred tissue and punctured the blisters and expressed the contents, re-applying moistened compresses. On the fifth day following the burn, an eschar had formed on the gluteal region, and around the axilla, with pus underneath it, so with the application of sterile gauze compresses, moistened with solution of mercuric chloride one to three thousand, in a few days the eschar was separated and removed, leaving a healthy granulating wound. Following treatment, moist compresses, with solution aluminum acetate, removing compresses each day (for one to two hours, for open air treatment, and at this time exposing wound to sun rays for thirty to forty minutes, which was about as long as the patient would stand it.

Result in five weeks: The wound was healed with smooth, flexible scar.

The choice of a solution in treating burns is more of a personal equation than a therapeutic asset. Normal saline solution has been highly recommended, also if you do not care for the staining, a one per cent solution of picric acid, or a three to four thousand solution of potassium permanganate may be used with good results.

Oily substances, as carron oil, oleum lini, ointments, and salves, should be avoided and if not you will get a higher percentage of infected wounds than if treated by some bland antiseptic dressing.

References: Hebra, Sneeve, Brazer, Ravogli, Pusey, Boland, Beck.



## THE PRINCIPLES OF PREVENTIVE MEDICINE AS APPLIED TO OBSTETRICS.

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In our present day and generation, the probability of the infant attaining childhood, the child of attaining maturity and the adult of attaining old age is greater than in the past century. The prolongation of the average span of life has come about through the application of the great advances in scientific medicine of the nineteenth century. The remarkable discoveries in Bacteriology, Pathology, Physiology, Chemistry, Physics, etc., have cleared away the element of mystery from an ever-increasing list of diseases and made it possible to classify disease more and more upon an etiological basis. Thus, the most important link in the chain of facts concerning diseases entities has been supplied and has made possible the term 'Preventive Medicine.' Preventive medicine becomes possible only to an extent proportionate to our knowledge of the natural history of a disease and necessarily implies familiarity with disease in all its aspects, particularly its cause. As to its value, witness, for example, the lowered mortality rate from diphtheria, rabies, tetanus, cholera, tuberculosis, and typhoid. It is in this field of endeavor, that of prevention of disease, that government and local health agencies can best serve the people.

When we come to look for a corresponding improvement in the statistics relating to the risks of childbearing, we look in vain. Analysis of mortality statistics from the registration area show that maternal mortality and infant mortality from maternal causes are not decreasing. Next to tuberculosis, maternity causes more deaths in women of childbearing age than any other cause. Each year over 23,000 mothers die from causes attributable to pregnancy and

nearly a quarter of a million babies under one year of age die. About one half of these deaths occur within the first six weeks of life and are due chiefly to maternal causes. Among fifteen important European countries fourteen show a more favorable maternal mortality than the United States and seven a more favorable infant mortality, a rather unenviable distinction and much to our discredit.

Investigations undertaken by the Children's Bureau of the Department of Labor show that these deaths are not decreasing because of the fact that the great majority of mothers do not as yet have the benefits of skilled care and advice. Detailed information concerning the mothers of nearly three thousand babies born within a short preceding period in rural areas of six states showed that only five cases received even the minimum standard of prenatal care and in eighty per cent of the cases the mothers received no prenatal care whatever. The inevitable consequences of such neglect is seen in the toll of lives taken by the toxemias, hemorrhages, contracted pelvis and other complications, most of which would be robbed of their danger were they discovered in time to be treated properly.

Without attempting to treat the subject in an exhaustive way, I will endeavor to point out some of the possibilities of preventive medicine during pregnancy, labor and the puerperium and how they may best be made available.

One of the first requirements is that we, as physicians, should spare no effort to make prompt and accurate returns of the deaths resulting from childbearing and also report all births. These data furnish the very basis of preventive obstetrics, pointing out to us, as they do, those factors which most influence the mortality rate. These statistics have already shown that puerperal infection and the toxemias of pregnancy together account for at least two thirds of the total number of deaths, and, as will be shown, are, to a large extent preventable.

The proper time for a pregnant patient to put herself under the care of her physician,

is early in pregnancy, preferably not later than the second period of amenorrhea. A thorough history and physical examination should be made at this time. The history and general examination may reveal a heart lesion with previous or threatened decompensation, requiring interruption of pregnancy or careful supervision and treatment during pregnancy. An unsuspected nephritis, diabetes, syphilis, gonorrhea or tuberculosis may be found and appropriate treatment instituted. Pelvic examination may reveal an extrauterine pregnancy and prompt surgical interference save the patient from serious consequences. Likewise tumors of the ovary or uterus may be discovered and removed if necessary or kept under observation. The uterus may be found retroverted and possible abortion or incarceration be prevented by manual replacement and fitting a pessary to be worn until the fourth month. The pelvic measurements can be made more satisfactorily early in pregnancy. It is easier to measure the diagonal conjugate at this stage and thus obtain one of the most reliable aids in estimating the size of the inlet of the pelvis. To be forewarned is to be forearmed, and those patients with absolute or borderline degrees of contraction should be delivered in the hospital where every safeguard is obtainable to insure a successful result. There is, in short, a great satisfaction, both to the physician and to the patient, to take an invoice, as it were, of the patient's condition at the start and thereby be better able to recognize any subsequent departure from the normal.

The next essential is to see that the patient is kept under observation throughout her pregnancy and is seen at definite stated intervals. In general, these prenatal visits should be made more frequently as pregnancy advances for the reason that toxemia and other abnormalities tend to manifest themselves more frequently as term approaches. It has been my custom to advise the patient to be seen every four weeks up to the beginning of the fifth month, every three weeks up to the beginning of the seventh month, every two weeks up to the beginning of the ninth month and every week

from then on until labor begins. At each visit the blood pressure should be taken and the urine tested for albumin. Of the two the blood pressure probably gives the earliest indication of toxemia and a systolic pressure of 135 mm. of mercury may be regarded as the upper limit of normal. Any rise above this figure, especially if associated with an increase in the diastolic pressure, points strongly to toxemia. If the blood pressure is known early in pregnancy this figure may be taken as the normal for that patient and any variation from this may be given its proper value. The urine and blood pressure findings will in most cases correspond and each serve as a check on the other. The final check in the search for toxemia is the answer of the patient to the following questions: 'Have you had any unusual headaches? Have you had any recurrence of nausea and vomiting? Have you had any swelling of the feet, hands or face?' Unless edema is demonstrable, these data are subjective in character and hence of less value unless taken in conjunction with the urine and blood pressure findings. Even tho the symptoms may be suggestive, a negative blood pressure and urine may be regarded as practically positive proof of the absence of toxemia.

We are not justified in saying that the culmination of toxemia in eclampsia is always preventable. Some cases are so fulminating in their development that no opportunity is afforded to carry out preventive measures. But these are the rare exceptions and to make these exceptions as few as possible requires vigilance. Not only must the patient be seen at regular intervals but she must be informed as to the symptoms to be on the lookout for, namely,—unusual headache, recurrence of nausea and vomiting and swelling of the feet or particularly of the hands or face. Should she notice any or all of these symptoms at some time in the interval between her visits to the physician, she should report them at once and have an examination.

In other words, the physician has not discharged his entire duty to the patient unless he has impressed upon her the necessity

of reporting to him the onset of certain symptoms of toxemia which may develop in the intervals between visits and which, if neglected, might rapidly progress beyond control.

Should toxemia be discovered, it will usually be found possible to try the effect of rest, diet and elimination. If, in spite of treatment, the evidences of toxemia grow worse or even remain the same, labor should be induced by the use of a Voorhees bag and the patient delivered before eclampsia develops. In more urgent cases, venesection and saline transfusion may temporarily stay the onset of eclampsia until labor is induced by the bag method, while in exceptional cases it may be best to deliver by operative methods. It is decidedly wrong, in the presence of a toxemia which is not responding to treatment, to continue expectant treatment, hoping that labor will come on in time to relieve the patient and doctor from the dilemma. Not only does this lead to increased mortality for the child and mother but it must be remembered that the kidney and other organs are sustaining more and more damage and may be permanently injured. Cases of chronic nephritis and continued high blood pressure following pregnancies complicated by toxemia or eclampsia are present in greater numbers than commonly supposed. Statistics show that toxemias of pregnancy are second only to sepsis as a cause of maternal mortality, and until research has revealed the true cause of toxemia, we can rely upon watchful prenatal care to effect a marked reduction in mortality and morbidity.

In addition, the patient should be questioned as to the occurrence of bleeding, however slight; constipation and persistent absence of the movements of the baby. The most important of these is occurrence of bleeding especially in the latter half of pregnancy. Such a symptom requires vaginal examination to prove or disprove the presence of placenta covering or bordering on the internal os, even at the risk of exciting pains from the trauma. Such bleeding, if neglected, renders the patient an increasingly poor risk when delivery must finally be

undertaken and should never be treated expectantly.

In the teaching of prenatal care in our medical schools and in instructions to pregnant women, greater emphasis should be placed on blood pressure estimations, urine examinations and the significance of symptoms pointing to toxemia, placenta previa, etc., than on the manner of dress, frequency of bathing, kind of recreation, etc., which are of relatively little importance.

During labor, the prevention of infection should be kept in mind from beginning to end. It causes by far the largest number of deaths of any of the causes connected with childbearing and this remains true in spite of the fact that we have certain knowledge of its cause and means of prevention. To Semmelweis of Vienna (1847) belongs the credit of showing that puerperal infection is, in reality, wound infection, and his method of washing the hands in chloride of lime solution before examining or delivering pregnant patients resulted in an immediate lowering of the mortality rate from 10 to 12 per cent to a fraction over 1 per cent. Previous to this, we are told, it was no uncommon thing for students or instructors to come directly from an autopsy with hands contaminated with infectious material and examine patients in labor or recently delivered, with the result that in some instances eleven out of twelve women, so examined, died of puerperal infection. If it is true that Semmelweis, by such a simple measure as washing the hands in ehloride of lime, could obtain such an immediate improvement in the mortality rate from sepsis, how much more improvement in our present mortality rate might we not obtain were we to avoid vaginal examinations as much as possible during labor and afford that much less opportunity for infection to be carried into the birth tract during labor? Vaginal examinations, as a means of following the progress of a normal labor, should be discontinued. All authorities and text books stress the point that they should be limited to the smallest possible number. Equally reliable information can be obtained by rectal examinations and by following the descent of the



head by abdominal palpation and repeated as often as desired with absolutely no risk of infection. While it is true that many physicians conduct labor by repeated vaginal examinations under aseptic precautions and claim to have had no cases of sepsis, this merely shows that infection is largely preventable by a rigid aseptic technique. But that such a technique is not obtainable in some surroundings and is not being used by all, is shown by the mortality statistics of puerperal infection which have shown very little tendency to decrease year after year. I feel certain that just as the use of chloride of lime as advocated by Semmelweiss in 1847 effected an immediate marked reduction in the mortality from sepsis, so would the routine use of rectal and abdominal, instead of vaginal examinations, bring about a further great decrease. A thoro preliminary cleansing of the vulva and surrounding parts cannot be too strongly emphasized as a necessary preparation for delivery. Midwives are certainly responsible for a large share of this mortality from sepsis, and until such time as their services can be dispensed with, they should be given a practical training in the essentials and not be allowed to practice without a license. The lowering of maternal mortality from sepsis would inevitably result in the saving of many babies who would otherwise be deprived of maternal care and breast feeding.

During labor, another important preventive principle is conservatism and watchful waiting. Nature, if given a chance, will do much more for what is sometimes termed 'uterine inertia' than ill-timed operative procedures. Pituitrin, when used with proper regard for its indications, has proved to be a most valuable addition to obstetric equipment, but its abuse has written into obstetric records many a case of ruptured uterus, deeply lacerated cervix or asphyxiated child, to say nothing of the larger number of such cases which, for obvious reasons, have never been reported. Its chief indication would appear to be that of shortening the physician's attendance during labor, regardless of the dimensions of the pelvis or the degree of dilation of the cervix. Some patients

are very susceptible to the drug and it is safer to make a practice of trying out the effect of a small dose of two minims before resorting to larger doses.

Along with the abuse of Pituitrin as a mere time-saving measure, may be mentioned the abuse of the forceps operation, especially high forceps, to shorten labor or as an ill-chosen procedure in emergency, when some other method of delivery would be much less dangerous for the mother and especially for the child. In many of these cases, by giving the patient more time, the cervical dilatation may be completed and the head pushed down to a lower level, rendering the operation much easier and safer.

Cesarean section is, without doubt, too frequently resorted to as an easy, ready means of solving an obstetric dilemma. Too little thought is given as to whether some other method of delivery might be more suitable or as to whether the present indication might be less serious than the possibilities of harm from a weak uterine scar in a subsequent pregnancy and labor.

Complete laceration of the perineum, with resulting incontinence of the bowel is preventable in most cases, especially if the physician has previous knowledge of a very narrow pubic arch which forces the head more toward the rectum, or if he diagnoses an unusually large head or a posterior rotation of the occiput. Likewise, in breech deliveries in primigravidae, requiring rapid extraction of the after-coming head, episiotomy will frequently prevent a complete laceration. The question as to whether an episiotomy is necessary or not may be estimated from the degree of crowning of a head at the time the laceration begins. If the head is only a third crowned and a laceration has already commenced in the midline, it is evident that by the time the head has distended the vulva completely, the tear will probably have extended very near to or through the rectum and an episiotomy is indicated. Surely, such an affliction as a complete laceration, should be prevented by every possible means.

During the puerperal period, much may be done to prevent the occurrence of retroversion. The patient should be cautioned to

empty her bladder at more frequent intervals and to lie on her side or toward the abdomen, throughout the involution period to favor the involution of the ligaments with the uterus in the forward position. Should an examination at the end of the second or again at the end of the sixth week reveal a posterior displacement, a pessary may be used to advantage to obtain involution of the ligaments with the uterus in the proper position.

The nipples should be effectively protected from external contamination by the use of sterile gauze or cotton held in place by narrow adhesive strips or a breast binder. The prevention of mastitis is of the greatest importance from the standpoint of the baby. A secretion deficient in quantity or quality should not be too hastily abandoned in favor of artificial feeding as the babies chance of survival is materially lessened by such a course.

Granted that there are splendid opportunities for the application of the principles of preventive medicine to obstetrics, how may they be applied in a practical effective way?

The Childrens Bureau of the Department of Labor at Washington, D. C., has been at work on the problem for some time and endeavored to have Congress act favorably on the Sheppard-Towner Bill, which had for its object, the establishing of prenatal clinics, consultation centers, instruction in the hygiene of maternity and infancy through public health nurses and lecturers, and the provision of medical and nursing care for mothers and infants at home or at a hospital when necessary. This bill failed to come to a vote and has been opposed apparently not on account of any lack of interest in its purpose but because it is becoming evident that this measure as well as many other proposed health measures, cannot continue to be enacted in a haphazard way, but should be grouped together, once and for all, in a much needed Department of Health whose

Head should be a member of the Cabinet. When this has come to pass, federal aid may supplement state appropriations as has been done successfully in promoting agricultural work, road building, vocational education, etc. Community hospitals, large and small, may be built and public health nurses may be trained in the essentials of prenatal care. With such special training, they may be relied upon to discover, in the course of their visits or in prenatal clinics, such cases as show evidences of toxemia or other abnormalities during pregnancy, and see that they call in medical aid before the condition becomes aggravated.

By such supervision, the laity will become educated to the desirability and necessity of close supervision throughout pregnancy, labor and the puerperium. Lack of knowledge has given rise to an attitude of indifference in the mind of the public to the importance of obstetrics and has caused the public to place a low estimate on the worth of obstetric services. Such accidents as occur are looked upon as foreordained and inevitable and are seldom regarded as preventable. As a result, the physicians have had very little to encourage them to render first-class service. Poor service has been the logical outcome of inadequate fees. Education of the laity will encourage physicians to do better prenatal, natal and post-natal work since their work will not only be more appreciated but will be better paid.

This problem will probably never be successfully solved until it is taken up by what we hope to have some day, a Department of Public Health. There is every reason to believe that we will then witness a striking improvement in our statistics relating to the risks of childbearing and a most important step forward in the application of the principles of preventive medicine to obstetrics.

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## CARDIAC CONDITIONS IN CHILDREN, THEIR SIGNIFICANCE AND PROGNOSIS.

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The object of this paper is only to review a few of the practical points and interesting points of heart disease in infancy and early childhood, which the Pediatricist see in their daily practice.

Since the advent of the X-ray, combined with constant improvement of laboratory methods, much has been added to the knowledge of the heart. Statistics show that deaths from cardiac disease and apoplexy exceed those from tuberculosis because more attention has been paid to the removal of the source of infection of tuberculosis. Why not then begin similar attack against cardiac disease? We all know that the frequency of cardiac disease in infancy and childhood is very common in our daily practice and would be very common indeed should we undertake an examination of all children in our schools, or of school age. As a general rule the medical profession, as a whole, has inclined to disregard the cardiac problem of children.

Heart disease in very early life differs essentially from the condition in later life. Many tend to improve or even to recovery, in early life. Congenital heart disease may be called a common condition, as our attention is called to it because symptoms usually attract attention during infancy and early childhood. We are consulted because of the cyanosis or because the little one seems to be suffering from "suffocating spells" or it may be an extreme malnutrition, which at times can be explained by the cardiac condition.

How then may we divide heart disease of infancy and childhood? It can be first Functional or Organic-acute or chronic—congenital or acquired. Among the congenital cases we find those showing murmurs but no enlargement or cyanosis—those with enlargement no cyanosis—and the typical one show-

ing cyanosis, a thrill, enlargement, and finally a murmur.

Functional and organic disorders shade gradually, the one into the other but a careful differential diagnosis between the two forms is of the utmost importance and very often exerts an all powerful influence on the whole after course of the little patients life.

We have two problems to consider, we have a damaged heart permanently wrecked or damaged and threatened with wreck, capable of complete or almost complete restoration to the normal. Here rest and guarded restriction in all directions are very essential and if prolonged may prevent a stunted life or the dwarfing of a career.

Again we have a heart affected by a functional disturbance, may be called a condition if you may, this may be associated with poor health from various causes or it may be a constitutional peculiarity.

As to the pulse we find bradycardia is very often an individual peculiarity and during convalescence from the acute diseases it is frequently found and when found usually denotes a very favorable prognosis. On the other hand tachycardia occurs in many diseases. Rapid heart action is very easily excited in childhood and is found more often in nervous excitable children.

Now what are the accepted causes of congenital heart disease? We find first imperfect development, the reason for the imperfections of development are unknown but many theories have been advanced among which are imperfectly established reproductive power, maternal sexual exhaustion, maternal infection or toxemia acting on the embryo. We must not lose sight of focal infection in the organic diseases, as related to cardio-vascular disease. Focal infection is beginning to receive deserved recognition and by this a means of prevention for some of the valvular diseases is brought to light. Syphilis we know is a frequent cause, also fetal endocarditis. So many cases respond to syphilitic treatment that we would think this to be classed as one of the most important.

Numerous are the lesions that occur. In volume four of Osler and McRaes Modern

\* Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



Medicine, we find listed 64 different congenital anomalies, this being based on 631 cases that went to autopsy. Many of these lesions are rare but among this list we find common lesions and it is the common ones that we are interested in. These are the ones that we should try to properly diagnose, treat and in this way try to help these little patients. What are the common ones? First pulmonary stenosis, deficient auriculo-ventricular septum, open ductus arteriosus, patent foramen ovale. Patent foramen ovale is one of the most common and is the most unimportant from a clinical view. There are no special symptoms and as a rule cannot be classed or considered as a distinct disease. Pulmonary stenosis is the most important, and among the most common. Next aortic stenosis and then deficient auriculo-ventricular septum. At times we are unable or it is impossible to determine the nature of the lesion and for practical purposes it is of very little or no importance, as our prognosis depends entirely on the severity of symptoms, irrespective of the lesions causing them and the nature of the lesion should not have any bearing on the treatment.

Among the chief symptoms are enlargement of cardiac dulness, cyanosis if present, a systolic murmur and thrill, clubbing of the fingers and dyspnoea. Cyanosis is the most important and the most common symptom. Numbers of cases do not present cyanosis. In very severe cases syncopal and epileptiform attacks occur. Nutrition is disturbed, consequently many are small and undersized and marked malnutrition at times can be explained by a very careful examination and the discovery of a congenital lesion. Pulmonary stenosis alone is a rare condition but it is usually accompanied by some other compensating murmur. Infants suffering from pulmonary stenosis alone usually die a few days after birth. Now as to murmurs, in regard to diagnosis, if transmitted up into the vessels of the neck, an open ductus arteriosus, if transmitted from right to left and heard over the heart area, an open ventricle. If cyanosis is present is usually a pulmonary stenosis complicating the picture. In those

with no cyanosis or enlargement and only a murmur, they usually grow to be normal men and women and are as a rule well developed. In those with a thrill, enlargement, cyanosis and a murmur, the outlook is grave, these usually dying before the age of five years.

They usually suffer from gastro-intestinal disturbances, have very little resistance to the usual infections, the heart becomes more decompensated and they usually die early.

Functional murmurs are often found, especially during the infectious diseases, usually disappearing during convalescence or soon after, these being due to myocardial degeneration. Among the most important cause is rheumatism, next in importance influenza and diphtheria. These are usually heard in the pulmonary and mitral areas.

Organic heart disease is often found, the most common being mitral insufficiency with the double mitral murmur. This condition we know to be caused chiefly by acute rheumatic fever and here again "focal infection" comes before us, the foci being usually in the tonsils. All of us are accustomed to the history of so called "growing pains" and at times are prepared to find mitral regurgitation upon examination.

Growing pains are dangerous and should be treated energetically. It is very likely that a congenital malformed heart may suffer an attack of endocarditis, this happening when the age occurrence of rheumatism or so called growing pains. We should always bear this in mind because it may lead to puzzling physical signs. All of us speak of chorea, tonsillitis, arthritis, endocarditis as a rheumatic affection. We should try and recognize rheumatism as infection, the foci being in the ears, tonsils, teeth or elsewhere. Finding focal infection will prevent many cases of cardiac cases climbing stairs in our schools, teach them to live in the open, advise wholesome food, not subject them to extremes in temperature, prevent overdressing, avoid damp dwellings, avoid fried foods, and an excess of sweets and avoid tea and coffee.

Pulmonary stenosis is classed by some as a rare disease but it is not as rare as one would think. The majority of "blue babies" are due to pulmonary stenosis. Some of course are due to congenital atelectasis and to status lymphaticus, this cyanosis as a rule not being constant. Patent auriculo-ventricular septum and patent foramen ovale rarely occur singly and as a rule is not diagnosed before autopsy because a patent foramen ovale may yield no physical signs as long as the pressure relations are normal.

Myocardial changes have a distinct and important bearing upon the development of serious complications during the infectious diseases and should we recognize this early many infants and children can be saved.

As to pneumonia many believe and practice that a case will get well without any treatment. 'Tis true that some do, but on the other hand cases at the crisis, or near the crisis, collapse and even though we stimulate all in our power, die. Because of this, if we stimulate early and guide our stimulation by the appearance or the intensity of the accompanying murmur, we can improve the tonicity of the myocardium so that when an extra strain is put on its function, it will be able to stand the strain.

All of us interested in Pediatrics are struck at times with the large proportion of cardiac murmurs, which after observed for a few months finally disappear. Some of these we obviously class as functional but a great many represent a mild attack of endocarditis, which has terminated in recovery.

To capitulate as to prognosis. Congenital heart disease certainly diminishes a child's chance of a long life. The majority die under the age of five years. The prognosis is bad in direct proportion to the cyanosis. Respiratory complications, especially bronchitis and broncho-pneumonia is greater in the very cyanotic cases than in those with very little or no cyanosis. The very cyanotic cases, at times become distressed, become more cyanotic, fight for air and after the attack collapse. At times the dyspnoea is so great that convulsions occur. Infectious diseases, especially whooping-cough is very fatal with these little patients, because of

added strain on the already damaged heart. Gastro enteritis makes a bad prognosis.

Who among us has not seen at one time or another, the great suffering endured by little children afflicted with cardiac disease and attacks of decompensation.

As Dr. Abraham Jacobi, the father of pediatrics, said in his subject "The Heart and Blood Vessels in the Young" in closing his subject. "I rejoice in knowing and learning more profoundly, and feeling more keenly, year to year, that there is no nobler aim for the abstruse study and abstract science of medicine than its utilization in the service of mankind, and that every intellectual effort and every scientific gain ought to be, and finally will be enobled by being made subservient to a practical end. That practical end of all investigation and study of anatomical and physiological questions is the prevention and cure of disease. It is this combination of intellectual labor and practical result, undertaken and accomplished in the interest, at the same time, of scientific research, and the moral elevation and physical welfare of both the individual and the commonwealth, wherein lies the fascination of our professional calling."

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#### DISCUSSION, DR. BENJ. BASHINSKI'S PAPER.

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*Dr. W. A. Mulherin.*—The significance and prognosis of cardiac conditions in children to-day is a very timely and important subject, especially is this the fact when we consider the newer ideas that are developing today, as regards heart cases, both in

adults and in children. Formerly, the profession laid great stress upon murmurs, also the transmission of the murmurs to the axilla. Today, transmission of murmurs only means the degree of intensity of the murmur. In a nutshell, the significance and prognosis of heart cases can be summed up in these few words: "What work can the heart do?"

Today a diagnosis of true organic heart trouble is not as readily made as it was a few years ago. Due consideration before establishing a diagnosis should be given to a preceding rheumatism, chorea, and infectious diseases, as a possible causative factor. Also enlargement of heart area, and a disproportionately high pulse. It is surprising how often we meet, in children, cases where the heart is primarily to blame, for instance, it is not infrequent to see a case where a child is irritable, peevish, easily tired, appetite poor, frequent headaches, a very quick pulse, anemia, that is due to an overtaxed heart. All the medicine we can give this child will do no good, until we realize that it is a cardiac case, and give it a sufficient amount of rest in bed.

As regards prognosis, I think this depends a great deal upon how quickly the diagnosis is made, and the amount of rest the heart receives. Of course, the amount of damage done to heart, and the vital force of the patient, has always to be taken into consideration.

In the treatment of cardiac cases, it is most important to impress upon the parents' minds that rest in bed, from six weeks to three months, is of more value than all the medicine we can give their child. In a general way I think it is well recognized that the proper cardiac treatment is about as follows: During all exacerbations, rest, complete and prolonged; for deformed valves with good heart walls and perfect compensation, fresh air, moderate exercise and general tonics; for feeble heart walls, failing compensation, and dilatation, rest and cardiac tonics.

### THE VALUE OF X-RAY AND ELECTROTHERAPY IN THE TREATMENT OF CASES NOT RESPONDING SATISFACTORIALLY TO ORDINARY TREATMENT.

D. M. Bradley, M.D., Waycross, Ga.

It is not my purpose in this short paper to go into the details of the different electric currents or to their applications in various diseased conditions in which they are indicated, but to try in a general way to refresh our memory of the value of Electro-therapy in treatment.

We who were in the practice of medicine a few years ago when electricity was advocated as a most powerful therapeutic agent, pushed our collections to the limit in order that we might buy of the many electric apparatus on the market at that time. Then we had never studied electricity as a therapeutic agent, and knew nothing about it. We did

not know whether a positive atom floated in a negative atom, or whether there were any atoms at all. We had no idea what changes would take place in a patient's anatomy when we turned on the current except that he would jump if the dose was too strong, we were not aware of the conditions in which it was indicated or in what conditions it was not indicated. We were equally ignorant as to modality, dosage and the required intervals between treatments. For these reasons we failed to get the results expected and to this have not forgotten our disappointments. It is true that we did what we could with the apparatus we had then—crude indeed, compared to that we now have, but even of that we were equally ignorant.

Much advancement has been made along this line recently, both as to equipment and to a knowledge of its operation. We know that to become proficient in this line of work requires talent and no little amount of study.

Electricity is as near a specific in conditions where it is indicated as is Mercury, The Iodides or Ergot.

Personal experience with this agent in this line of work in Base Hospital practice in the late war convinced me more strongly of the value of this therapeutic agent, which is still being overlooked by a large per cent of the medical men throughout the country. Electric currents, properly applied, are capable of reducing high blood pressure, of elevating low blood pressure, of producing hemorrhage or checking hemorrhage; contracting muscles or relaxing them; producing congestion or relieving it, relieving catarrhal conditions of mucous membranes, stimulating peristalsis, curing constipation, and having a very beneficial effect in chronic nephritis—not these conditions alone but many others are surprisingly benefitted.

What few results the advertising specialist has today are to a great measure attributed to some form of current application.

No one part of the body is so remote that it cannot be reached and benefitted, where need be, by the proper current and correct application; This is made possible when we consider that each nerve acts as a conductor.



The influence of X-rays in treatment of cancer, lupus, acne, eczema as well as other skin and deep seated affections is too well known, not only to the profession, but to the laity as well, to need any comment here.

The possible results to be obtained from Electro-therapeutics are great, but while electricity is potent for good it is also potent for harm in unskilled hands, therefore laboratory treatment is absolutely the only solution and proper way to get results from this very valuable agent and aid to the general practitioner. Every section should have, and will have in the near future, a well equipped laboratory for X-ray and Electro-therapeutic work, for I feel sure that the time is not far distant when this line of work will come into its own to stay with experienced operators to render the required assistance.

Lest we forget—results are not alone obtainable from use of the current, but eliminants and tonics are very necessary adjuncts. All therapeutic measures in treatment of any disease must be in harmony with the pathology of the disease and the physiology of the patient.

I do not wish to be understood as advocating this agent as a cure all or panacea for all diseases of mankind to the neglect of any other measure, but when other means fail, give your patients the benefit of a reference to an electro-therapeutist.

In conclusion, we may say that the action of these agents is indicated for superficial lesions, and in combination with surgery is indicated in a large number of cases of deeper origin.

## THE AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY.

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Under this title there reappears a Journal with which we have long been familiar and which gave us excellent material until for reasons of policy, it ceased its publication last February—the American Journal of Obstetrics and Diseases of Children. The new plan of publication widens the scope of the publication and as the same time limits the articles definitely to the character of the name.

The first issue in October, 1920 is an excellent magazine and rewards its readers. Therein is given a prospectus of issues to come that is inviting one naturally turns to learn the editor's name and the price. George W. Kosmak is well known for his editorial ability and his Associate, Hugo Ehrenfest has demonstrated his skill in handling his department of Current Medical Literature. In addition there is an Editorial Board comprising well known men from every part of the country who will see to it that men everywhere can have their place in the Journal's interest and work.

The C. V. Mosby Company of St. Louis are the Publishers. Their place in medical activities is well known and is dependable.

The price of the Journal is six dollars the year. The obstetrical articles alone are of far more value than that to the general practitioner.

R. R. D.

**THE JOURNAL**

OF THE

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**Editorial Department****THE WORKMEN'S COMPENSATION LAW.**

The Georgia Legislature at its last session passed a Workmen's Compensation Law, to become effective March 1st., for compensation in case of accident, applicable to all workmen in the State, when ten, or more are employed in the same business, except those employed in inter-state com-

merce, farm, or domestic laborers, casual labor, and employees of charitable institutions.

The acceptance of the Act is compulsory for State and Municipal employees, but is nominally elective for private employers. If the employer elects not to accept the Act in case of personal damage brought by an employee, the employer shall be deprived of the following defences:

That (a) the employee was negligent.

(b) the injury was caused by the negligence of a fellow employee.

(c) the employee assumes the risk of the injury.

For the workman electing to be exempt from the Act the above lines of defense shall be valid. An employer who does not give written notice of his desire for exemption is assumed to have accepted the provisions of the Act.

The operation of the law is to be carried out under the supervision of an Industrial Commission, composed of the Commissioner of Labor, the Attorney General, and two commissioners appointed by the Governor; one representing capital, and one representing labor.

The compensation under this act includes medical and surgical attention, together with hospital care, not to exceed thirty days, and in no case is the employer liable for over one hundred dollars for the combined service. For disability of less than two weeks duration there is no compensation for loss of time. Should the disability last over two weeks, compensation is granted from the date of accident, at the rate of 50 per cent. of the average wages, but not to exceed twelve dollars per week, nor less than six dollars per week, with equitable arrangement for partial disability. In case of total disability the weekly allowance is paid for three hundred and fifty weeks, but in no case shall the employers liability exceed four thousand dollars Lump sum settlements for certain injuries is provided for by schedule. For example the compensation for the loss of a hand, is one half of a average wages for one hundred and fifty weeks, making a maximum liability of eighteen hundred dollars.

In case of death burial expenses are paid to the amount of one hundred dollars and dependent members of the family receive compensation for a period not to exceed three hundred weeks from date of injury.

In order to protect the employees from irresponsible parties, the employer must take out insurance in some old line company, or a mutual insurance company, unless he can convince the commission of his ability to meet all liabilities from accidents occurring to his workmen.

The act is a long one, covering twenty one pages of closely printed matter. The chief points of interest to the medical profession are:

I. The law applies to all workmen in the State, with the exceptions indicated above.

II. The employer can designate the physician who is to look after his injured workmen, and presumably the compensation of the physician can be determined by mutual agreement. In an emergency any physician may be called in.

III. The compensation for physician and hospital is to be based on the charges prevailing in the community for similar treatment of injured persons of a like standard of living, when such treatment is paid for by the injured person.

IV. All accident cases are to receive medical and surgical attention for thirty days, but in no case shall the combined expense of medical, surgical, and hospital attention including supplies, exceed one hundred dollars.

V. The law encourages equitable lump sum settlements for all liabilities, though the settlement must be approved by the Industrial Commission.

VI. Notice of injury must be furnished the employer, otherwise he is exempt from liability.

During the past nine years Workmen's Compensation Laws have been enacted in nearly every State, North Carolina, South Carolina, Florida, Mississippi and Arkansas alone remaining out. The Georgia law follows along the line of the average State law,

but it is considerably less liberal to the workmen than the laws of most other States, and consequently it is not entirely satisfactory to the employees.

From the doctors point of view the allowance of one hundred dollars for a months treatment, including care in hospital, and supplies is intirely inadequate, as no severe accident case requiring operation, anti-tetanic serum, or other expensive supplies can be cared for in the hospital that length of time for that amomnt. It is unfortunate that the bill of the doctor, the hospital, and the drug store, should be considered as one item and the limit placed on the entire amount, leading of course to disagreement as to who shall be paid in full, and who shall not. While it may be necessary to limit the amount the doctor may charge for the month's treatment, it seems entirely unreasonable to make his fee contingent upon the amount spent by the patient for hospital care, or medical supplies.

On the whole the law is a step in advance, in that the injured workmen receives a definite amount of compensation following his accident, and the money that should go to his support will be no longer dissipated in long and expensive litigation.

This law is important as marking, in this State the first step towards socialization of the medical profession, as carried out in Europe and more recently in England. The next step of those interested in Labor Legislation, is to secure compulsory health insurance for the workman and his family, followed by old age pension. The controversy over health insurance in New York, and some other Northern States, is at present very intense, and we will probably hear more of these matters in Georgia, in the near future.

Labor Legislation along these lines is of vital importance to the doctors, and before any act is passed it should be well scrutinized to see that the doctors interest is not disregarded.

George R. White, M. D.

2 E. Liberty St., Savannah, Ga.



## THE BATTEY MEMORIAL.

### An Appeal to Every Georgia Doctor.

Twenty-five years ago Dr. Robert Battey passed away. His widow, Martha Smith Battey, in her ninetieth year, is with us here in Rome.

Early next May the Medical Association of Georgia meets in Rome.

There is a strong feeling among the doctors of this district that the May meeting should be the occasion for some definite act in memory of Robert Battey.

To this end a committee was appointed by the Seventh District Medical Society at its meeting at Dalton, Last July. At the recent December meeting of this society a further special committee was appointed to raise the needed fund of \$2,600.00. This committee consists of Dr. J. C. Watts, Dr. W. J. Shaw and Dr. H. E. Felton. Dr. M. M. McCord, of Rome, was **elected** secretary-treasurer and custodian of the fund to be raised for the Battey Memorial.

After much deliberation it was unanimously decided that a shaft of granite, with letters and tablet of bronze, was most practical and fitting. It is proposed to place this memorial at a suitable spot near the convention hall for unveiling at the May meeting.

We hope and believe that every Georgia doctor will get behind this movement to honor a great pioneer in our profession. You are urged to sign one of the options of the accompanying blanks and mail it to Dr. M. M. McCord, Rome, Ga. We urge this the more because the debt is due and the time opportune for the presence of his widow, his great helper, and for the May meeting of the Medical Association of Georgia, in Rome.

Robert Battey was a native Georgian, a gentle, modest village doctor, who, when pelvic surgery was in its infancy, by his courage and originality, became world-famous and brought great honor to his state and section.

Forty-eight years ago, when the thought of opening the peritoneal cavity caused the boldest surgeons to pause, and in the face of bitter local criticism that reached even to threats of lynching, he first removed diseased

ovaries and cured a bed-ridden patient who is living today.

Dr. Joe Price, speaking of pelvic surgery, once said to a group of doctors at his clinic in Philadelphia, "Old Battey, in a way, was the daddy of it all." Marion Sims was his staunch friend and admirer. Just before his first operation he submitted his reasoning to a number of American surgeons. One wired "For God's sake, go slow." Samuel D. Gross wired "Go ahead. There are millions in it."

Soon after his first reports Dr. Battey was offered a professorship in one of the great medical schools of the north. They urged him and wired that a furnished house was ready for him. He replied that he felt that his duty was here.

Dr. Battey was born November 26, 1828, at Augusta, Ga. He graduated from Jefferson Medical College in 1857. From this institution, in 1891, he received the degree of LL.D.

After graduation Dr. Battey's home and work were in Rome, Ga., excepting, 1872-1875, he was professor of Obstetrics in Atlanta College of Medicine and, 1873-1876, editor of the Atlanta Medical and Surgical Journal. He was for four years in the Confederate service, as brigade surgeon or in charge of hospitals. For many years he conducted his Gynecological Infirmary at Rome, Ga.

He was a member of the American Medical Association, and secretary of its obstetrical section, 1875-1876; president of the American Gynecological Society, 1889; president of the Ga. Medical Association, 1876; president of the Floyd Co. Medical Society, 1888; president of the Tri-state Medical Society, 1892; honorary fellow of the Obstetrical Society of Edinburgh, Scotland; fellow of the British Gynecological Society, and honorary fellow of numerous other medical organizations.

Besides his gynecological work, which was very large and varied and which he handled with much skill and success, he, early in his career devised a new treatment for club-foot. He was the originator of iodized phenol; also of a new method of treating vesico-vaginal fistula. His numerous contributions to medical literature are well known.

Among the first he seized eagerly upon the principles of antiseptics and asepsis. He es-

pecially valued chlorine, using it in the form of Labarraque's solution.

Dr. Battey repeatedly expressed the conviction that physiological chemistry would sometime discover an elusive, hitherto unsuspected principle in ovarian pathology, thus clearly foreshadowing endocrine physiology and pathogenesis.

None can deny that Robert Battey was a strong man, a pioneer, who, amid many difficulties, rough-hewed the way toward helpful truth.

The committee in charge has such faith in the interest and co-operation of all Georgia doctors that it is about to give the order for the memorial. We believe you will appreciate the reason and need for this haste, and the great embarrassment and loss it will bring to a few unless every doctor helps. Mail at once your check or your promise, and be with us in May.

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### INTRAVENOUS MEDICATION.

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Recently there have appeared many articles in the journals pointing out the various dangers in the administration of arsenical preparations intravenously. All of them imply to perfect technic on the part of the operator.

The object of this editorial is to call attention to common errors in technic whereby bacteria are introduced into the solution. The writer has seen various men give drugs intravenously and has marvelled at the liberties that may be taken. Once in discussing this matter with a doctor the latter showed me what elaborate precautions he took to avoid introducing aid into the veins. In the meantime his nurse was preparing a dose of arsphenamine. She knocked the ampoule against the mouth of the mixing bottle to get all of the powder out. Then she added the hydroxide solution, which had not been sterilized. The surgeon stoppered the bottle with his thumb and shook the solution. It is true his hands had been scrubbed but was his thumb surgically clean? This is not an isolated instance but

a striking one selected from many observations.

Patient after patient receive his medication in this careless way and apparently nothing comes of it, but if one inquires he finds his patients objecting to this form of treatment because his friends have told him their experiences—of chills and fever and vomiting and purging and pain. The wonder is that there are not more deaths.

It is our hope that every one who reads this will check up his technic. Sit down and think over each step in your preparation of the solution and its administration. This is meant for all of us, not only the men who have to watch their procedures all the time to keep them clean but especially for those who are satisfied with their technic.

If you do not possess the necessary paraphernalia to sterilise properly and give the older and more complicated solutions, the writer would advise the use of the neoarsphenamine which requires so much less manipulation in its preparation—sterile distilled water, the drug, a glass to mix them in and a large hypodermic syringe being the only essentials.

Do not trust to the marvelous resisting powers of the human body to take care of your slips in technic, because sometimes Jove nods, and then you may have a death added to your account.

—D. H. DuPree.

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### THE SEVENTH DISTRICT MEDICAL SOCIETY MEETS IN ROME.

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On Wednesday at 10 A.M., December 1st, the Seventh District Medical Society met at the City Auditorium in Rome, in its semi-annual Session.

On account of the illness of the president, Dr. Howard E. Felton of Cartersville, the vice president, Dr. C. F. McLain of Calhoun presided over the meeting and the secretary, Dr. W. W. McCord of Rome had charge of the records.

The Society was opened by prayer by Dr. E. R. Leyburn of Rome.

Dr. A. C. Shamblin, President of the Floyd County Medical Society and City Physician voiced the sentiment of the local profession and the city in an address of welcome, which was responded to by Dr. Joe P. Bowdoin of Adairsville in his usual graceful and eloquent style.

The Chairman of the committee on public health and legislation made a very interesting report.

The arrangement committee reported that lunch would be served at the General Forest Hotel at 1:00 P.M., and the price would be \$2.00 per plate.

Dr. R. P. Cox reported for the Battey Memorial Committee. The report showed that the committee recommended an appropriate shaft to be erected in Rome near the City Auditorium in honor of the late Dr. Robert Battey and that it was the desire of said committee to have the monument erected by the time of the meeting of the Georgia Medical Association here next May, so that appropriate public exercises could be held at that time at the unveiling. A motion was made and carried that inasmuch as the work of the great pioneer surgeon meant as much to the entire state as it did to the Seventh District, that through the state medical Journal the opportunity be presented to every member of the profession in Georgia to make such a donation as he desired to help perpetuate the memory of the great man. Drs. J. C. Watts, W. G. Shaw of Rome and H. E. Felton of Cartersville were appointed a finance committee. Dr. W. M. McCord, secretary and treasurer of the Seventh District Medical Society was elected custodian of the funds, to whom any funds are to be sent to be applied to the purchase of shaft. Drs. R. P. Cox, W. P. Harbin and Geo. R. West were appointed a committee to write the life of Dr. Battey for publication in State Journal. Dr. Allen H. Bunee, Secretary of the Medical Association of Georgia was present and offered the use of the Journal in presenting the matter to the profession. His offer was accepted and he was made a member of the publicity committee.

A motion was made and carried that a distinct committee be appointed to assist the local committee at Rome in getting a full attendance at the State Medical Association in Rome next May, and also to be on hand in Rome to cooperate with the local committee in the reception and entertainment. The following committee from the Seventh District Society was appointed:

Floyd. Dr. W. P. Harbin, Rome; Chattooga, Dr. B. F. Shamblin, Lyerly; Walker, Dr. J. H. Hammond, La Fayette; Polk, Dr. H. W. Hall, Cedartown; Bartow, Dr. Joe P. Bowdoin, Adairsville; Catoost, Dr. W. J. Green, Ringgold; Gordon, Dr. Tramel Starr, Calhoun; Paulding, Dr. G. W. Ragsdale, Dallas; Cobb, Dr. W. E. Beuron, Marietta; Murray, Dr. S. A. Brown, Eton; Whitfield, Dr. H. L. Erwin, Dalton.

Each of the above committeemen is expected to use every effort to get a 100 per cent attendance from his county society and then be in Rome as early as possible on the morning the convention opens, in order to organize the committee and work with the committee of the Floyd County Society in reception and entertainment.

Resolutions of sympathy on the recent death of Mrs. Anna Veal Fouche were passed and secretary instructed to communicate them to the loved ones. Mrs. Fouche was a very efficient public health nurse, who up to her death had charge of the children's Free Clinics at Rome, also she had charge of the emergency hospital during two winters in Rome where scores of victims of influenza received attention.

Resolutions of regret on the illness of the president of the society, Dr. Howard G. Felton, were passed.

The scientific program was taken up which was as follows:

Analysis of Causes of vomiting.

Eugene O. Chuinie, M.D., Rome, Discussed by Drs. R. W. Harbin, W. M. McCord and B. F. Shamblin.

Malaria—James Allen Johnston, M.D., La Fayette, Discussed by Drs. Hammond, DuPree, Turner, Hamilton, and Bowdoin.



Observations at Recent Clinical Congress of the American College of Surgeons.

Ross P. Cox, M.D., Rome.

The Pioneer Surgeon—Geo. R. West, M.D. Chattanooga.

Hospital Standardization—Wm. P. Harbin, M.D., Rome.

Broncho-Pneumonia as a complication in Disease of Infancy and Childhood.—W. M. McCord, M.D., Rome.

Fractures of Femur, J. Harry Mull, M.D., Rome.

Treatment of Burns.—A. F. Routhedge, M.D., Rome.

Preliminary Report Radium Service Harbin Hospital.—W. H. Lewis, M.D., Rome.

Address—Dr. Allen H. Bunce, Atlanta.

A silent toast was given to the memory of Dr. Battey at the General Forrest Hotel.

Calhoun and Cedartown each extended invitation from their respective local Medical Societies; Calhoun was decided upon as the next meeting place the 1st Wednesday in July next.

### MEETING OF THE SIXTH DISTRICT SOCIETY.

Doctor Geo. Y. Massenburg, Secretary of the Sixth District Medical Society reports that an enthusiastic meeting of the Sixth District Medical Society was held at Hotel Dempsey on December 15th. The programme was as follows:

1. Abnormal Pregnancy, With Report of A Case At Full Term, By Dr. A. R. Rozar, Macon, Ga. Discussion opened by Dr. J. C. Anderson, Macon, Ga.

2. Warm vs. Cold Air in Treatment of Pneumonia, By Dr. A. F. White, Flovilla, Ga. Discussion opened by Dr. C. L. Ridley, Hillsboro, Ga.

3. Obscure Temperatures in Infants and Children, By Dr. Benjamin Bashinski, Macon, Ga. Discussion opened by Dr. T. D. Walker, Jr., Macon, Ga.

4. X-Ray Treatment of Menorrhagia and Metrorrhagia, By Dr. C. D. Cleghorn, Macon, Ga. Discussion by Dr. W. J. Little, Macon, Ga.

5. Report of Case Congenital Pyloric Stenosis, By Dr. O. H. Weaver, Macon, Ga.

Discussion opened by Dr. C. H. Richardson, Macon, Ga.

6. Deafmutism, Clinic and Report of Cases, By Dr. M. M. Stapler, Macon, Ga. Discussion opened by Dr. G. T. Miller, Macon, Ga.

7. Report of Clinical Cases, Cancer and Fractures. By Dr. C. C. Harrold, Macon, Ga. Discussion opened by Dr. Harry Moses, Macon, Ga.

At the business meeting of the Society the following officers were elected for the new year: Dr. A. H. Black of Thomaston, President. Dr. G. L. Alexander of Forsyth, vice president. There were about forty members present during the meeting.

### MEETING OF THE TWELFTH DISTRICT SOCIETY.

The Twelfth Congressional District Medical Society held its regular Meeting in Wrightsville, Georgia, December 8th, 1920. The following programme was carried out:

Invocation: Rev. W. A. Brooks, Wrightsville, Ga.

Address of Welcome on Behalf of City of Wrightsville: Hon. Ben Hill Moye, Wrightsville, Ga.

Address of Welcome on Behalf of John-son County Medical Society: Dr. R. E. Brinson, Wrightsville, Ga.

#### Scientific Program.

Precautions in Goiter Surgery: Dr. T. C. Thompson, Vidalia, Ga.

Tic Douloureux and its treatment: Dr. Frank K. Boland, Atlanta, Ga.

Clinical Impression of a Diagnostic Study of One Thousand Cases: Dr. Stewart R. Roberts, Atlanta, Ga.

Orthopedic Problems: Dr. Theodore Toepel, Atlanta, Ga.

Classification and Treatment of the Different Types of Hemorrhoids: Dr. M. C. Pruitt, Atlanta, Ga.

Chronic Parotitis: Dr. J. W. Palmer, Ailey, Ga.

The Physician and the Health Officer, Dr. O. H. Cheek, Commissioner of Health, Laurens County, Dublin, Ga.

Surgical Treatment of Gall Bladder Disease: Dr. J. W. Edmondson, Dublin, Ga.

The Diagnosis and Treatment of Cataract: Dr. T. J. Blackshear, Jr., Dublin, Ga.

Barbecue at 7:00 P.M.

The officers of this Society are: Dr. E. B. Claxton, President, Dublin, Ga., Vice-President; Dr. T. E. Blackburn, Swainsboro, Ga.; Dr. T. C. Thompson, 2nd V-President, Vidalia, Ga.; Dr. J. H. Moore, Secretary-Treasurer, Dublin, Ga.

### MEETING OF THE THIRD DISTRICT SOCIETY.

The Third District Medical Association, held its Twenty-seventh Semi-annual Session with Ben Hill County Medical Society at Fitzgerald, Georgia, November 24th. There were 50 Doctors from all over the District present. Besides being one of the most interesting scientific sessions held by the Association in a long time, the local physicians gave a turkey and bird supper which was heartily enjoyed by all. The officers elected for the ensuing year are as follows: President, Dr. D. B. Ware, Fitzgerald; Vice President, Dr. H. T. Simpson, Smithville. The Twenty-eighth Semi-annual Session will meet with Sumter County Medical Society at Americus, Georgia in June, 1921. The following programme was carried out by the Association as reported by Dr. Chas. A. Greer of Oglethorpe, the efficient Secretary and Treasurer of the Third District Medical Association.

#### Papers.

1. The Vaccines in the Prophylaxis and Treatment of Influenza and Pneumonia: Dr. M. S. Cohen, Fitzgerald, Ga.

2. Malaria Hemoglobinuria: Dr. J. C. Logan, Plains, Ga.

3. Constipation as the Cause of Disease and its Safe Treatment: Dr. L. L. Wheldon, Ocilla, Ga.

4. Stenosis of the Larynx-Report of an Unusual Case: Dr. L. F. Grubbs, Americus, Ga.

5. Significance of Pain in Diagnosis: Dr. Jno. T. Moore, Syeamore, Ga.

6. The Care of the Pregnant Woman Before, During and After Labor: Dr. R. P. Glenn, Americus, Ga.

7. Plicating the Cæcum: Dr. Frank Ward, Fitzgerald, Ga.

8. The Clinical Study of Focal Infection: Dr. S. P. Kenyon, Dawson, Ga.

9. Emergency Headsurgery: Dr. R. B. Ware, Fitzgerald, Ga.

Turkey and Bird Supper at 8:30 P.M.

### SURGICAL ABSTRACTS.

Edited by  
Edgar H. Greene, M.D.

Furniss, H. D.

UROLOGY IN WOMEN—American Journal of Surgery, 1920, XXXIV, 12.

A comprehensive view of Gynecology cannot omit a consideration of urology. The often coincidental affection of the genital and urinary organs in women is acknowledged and today a gynecological service is not considered complete unless one or more of its members is a competent Urologist.

Urological conditions may be simple and confined to the urinary organs; or they may be related to disease of the genitals, or they may be dependent one upon the other.

Chronic urethritis, with or without trigonitis, is the most frequent condition found in diseases of the urinary organs in women. The lesions are usually mild. In women, the bladder readily adapts itself to distention or pressure as from new growths, pregnancy, etc., so that drainage is seldom interfered with. Contrast with urethral stricture or prostatic enlargement in man.

Calculi in the kidney and ureters appear to be of the same frequency in the two sexes and necessitate the same surgical problems. Vesical Calculi are rare in women probably because of the excellent drainage.

Urinary tuberculosis is a simpler affair in the female than in the male. Genital tuberculosis rarely extending to the urinary tract, a happening not so infrequent in the male.

Pyelitis appears to be a common occurrence and ureteral stricture far from rare in women. Both are infrequent in the male.

The author advises a procedure for those who are skeptical about the occurrence of ureteral stricture. "The hang that is noticed when an attempt is made to withdraw an olive bulb that has passed beyond the stricture; the uretographic demonstration of a dilated ureter with a point of narrowing below; and relief of symptoms by stretching the stricture, should be sufficient proof of the occurrence of this condition."

Attacks of pain from ureteral stricture are intermittent, coming on first, at long intervals in moderate severity, with gradually decreasing intervals and increasing severity.

Injuries to bladder, urethra and ureters are discussed. In our time of better obstetrics, fewer injuries to the bladder and urethra are observed. Moreover the injuries to these organs during an operative procedure are less frequent than formerly.

Regarding new growth in the bladder, the author believes that papillomata are as frequent in the female as in the male, but that the infiltrating carcinomata are rarer. The carcinomata most often seen is that which extends from a cervical growth. This extension often occurs before vesical symptoms or the appearance of the cervix and vagina arouse suspicion. Cystoscopic examinations in cases of uterine carcinoma are advised, so that such extension may be known and deter the gynecologist from too radical a procedure.

**Fauntleroy, A. M.**

#### DEVELOPMENT OF AN INGUINAL HERNIA THROUGH THE FEMORAL RING FOLLOWING DESCENT OF THE TESTICLE BY THE SAME ROUTE—Annals of Surgery, 1920, LXXII, 6.

The author has been unable to find report of a similar case in surgical literature.

A young man, C. E. R., aged 22 years, admitted to hospital with diagnosis of complete left indirect inguinal hernia. There was then a distinct enlargement in the left inguinal region, extending into the scrotum. This enlargement was not visible the next day, nor could any impulse be felt with the index finger in the external ring. Operation was

decided upon because of the finding of the first examination.

Operation—Ether—Usual exposure of left inguinal region. Dividing the aponeurosis of the external oblique muscle, no cord was visible, although a testicle could be palpated in the scrotum. Upon the separation of Poupart's ligament from the internal oblique muscle, the cord came into view, descending vertically, passing through the femoral ring and thence into the scrotum. This anatomical arrangement explains why the impulse could not be elicited at the external ring. The cord was lifted up, sac dissected away, ligated at the internal ring and removed. The cord was buried, the internal oblique muscle sutured to Poupart's ligament in the usual manner, except that an effort was made to close the femoral opening (except for cord) from the inside by suturing the under side of Poupart's ligament to Cooper's ligament.

Recovery was uneventful and he was discharged to duty in thirty days.

#### MEDICAL ABSTRACTS.

Edited by

M. F. Morris, Jr., M.D.

Treatment of Diphtheria Carriers With Detoxicated Klebs-Loeffler Vaccine.—Fraser and Duncan (Lancet, Nov. 13, 1920), suggest a course which they believe will be of value in the solution of this important public-health problem. The detoxicated vaccine is first given in 0.05 c.c. doses, containing 5,000 million bacilli. The dose is gradually increased until the twelfth dose, given on the forty-fifth day, is 3.5 c.c. in amount and contains 350,000 million bacilli. Fraser and Duncan gave the vaccine either intra-muscularly or intravenously, and, reported good results.

Myelogenous Leukemia: Treatment By Benzene And Roentgen Ray.—Lafleur reports a case (Canadian Medical Association Journal, Nov., 1920), in which treatment by benzene and roentgen-ray undoubtedly caused a mark-



ed improvement in the blood picture and in the general feeling of the patient. No untoward effects followed the administration of the benzene.

### **Involvement of Auricle and Conduction Pathways of Heart Following Influenza.**

According to Hamburger, (American Journal Medical Sciences, Oct., 1920), post-influenzal complications can be grouped as follows: (a) fatal cases showing acute parenchymatous degeneration and vacuolization of the myocardium; (b) non-fatal, acute cases, showing involvement of auricle and conduction system during the height of the infection, with a restoration to normal cardiac mechanism with subsidence of the infection, duration 2 to 6 weeks; (c) non-fatal chronic cases with arrhythmia and involvement of the auricle persisting and causing partial invalidism long after the subsidence of the acute infection; the duration of this form is twelve months and more.

#### **Rapid Method of Pneumococcus typing.**

Oliver (Journal of Infectious Diseases, Oct., 1920) describes a method by which the typing of the pneumococcus may be done within thirty minutes after the specimen of sputum is received. This method is a precipitin test of filtered sputum to which bile has been added. For the details, one may consult the original article.

#### **Opium in Acute Dilatation of the Heart.**

In the case described by Davidson (Semana Medica, June 3, 1920), compensation, in an old case of aortic regurgitation which had been lost as a result of severe climbing, was restored after all other measures failed, by a single injection of an opiate. Prior to this injection, the heart was beating at the rate of 224 per minute.

#### **Spinal Sign in Gastric Crises of Tabes.**

At about the fifth dorsal interspace, always on the left side, and rarely involving the right side, and just to the left of the vertebral column, Browning (Medical Record, Oct. 30, 1920) has found an area of tenderness, in the gastric crises of tabes.

Pressure on this area will cause the patient to wince.

#### **Treatment of Influenza.**

Isolation of the patient and disinfection of the nasal and bronchial secretions. Every case should be considered as serious and should be confined to bed until the fever has disappeared. The treatment is mainly supportive, careful nursing and good feeding being also very important. In addition to calomel or saline laxatives, Dover's powder, in gr. X doses may be given at night. If the fever is high and delirium is present, acetyl-salicylic acid, gr. X, may be given, and an ice-cap applied to the head. The medicinal antipyretics should be used with caution, as profound prostration sometimes follows their use. Some alkali, such as potassium citrate, should be given several times daily. In cases with great cardiac weakness, stimulants should be given freely; and during convalescence, strychnine in full doses. The intense bronchitis, pneumonia, and other complications should receive their appropriate treatment. (Osler and McCrae, Principles and Practice of Medicine, 1920).

### **CLINICS AND CASE REPORTS.**

Edited by

C. E. Waits, M.D.

#### **A CASE OF TRAUMATIC SENSORY APHASIA.**

By J. L. Campbell, M.D., F.A.C.S.

This little girl, age eleven years, is one of a series of thirty-three cases of head injuries seen by us at Grady Hospital last winter.

She was playing on West Peachtree St., late in the afternoon of May 24th, and while running backward collided with the side of an automobile. Her head was struck just behind and a little below the left parietal eminence probably by the knob on the door.

She was admitted to Grady Hospital a few minutes later, in a state of extreme shock. There was a wound at the site of

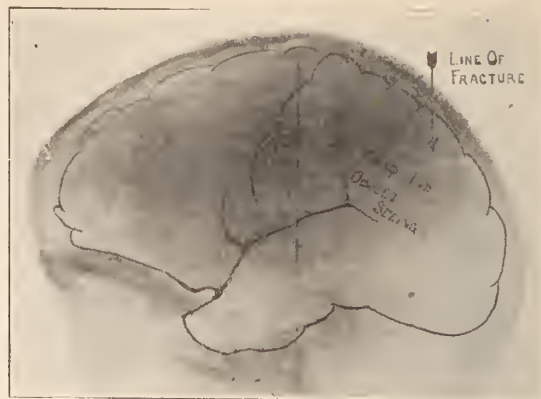
the blow 3 cm in length extending to, but not through, the pericranium. This was hastily dressed in the clinic and she was sent to the ward. Two hours later her blood pressure was 90 systolic and 50 diastolic; the pulse was still irregular and varied from 60 to 96; her respiration was shallow and labored.

As soon as it was considered safe to move her to the X-Ray room we found that there was a linea fracture of the left side of the skull extending from the median line posteriorly to a little above the middle of the zygoma lying, as you see, just over the fissure of Sylvius.

For the next four days her condition was so changeable that we did not think it wise to attempt an operation. The pulse varied greatly ranging from 70 to 130 and the temperature from 100 to 105  $\frac{3}{5}$ ; there was alternately a paralysis and muscular twitching of the right side of the face and neck, right shoulder, arm, forearm and hand, but there was no constant paralysis. The urine and feces were passed involuntarily. At times she cried out as if in pain and was very restless when not controlled by morphine. She was stimulated and fed entirely by the rectum for two days, but began to swallow some on the third day.

A spinal puncture made on the third day showed some blood in the cerebro spinal fluid and a culture also showed staphylococci (which I believe was a contamination).

The morning of the fourth day her condition seemed improved, so we determined to explore the left side of the brain. She was lightly anesthetized and a 0.5% solution of novocain and adrenalin (10 M. to the ounce) was injected along the proposed line of incision, the posterior end of which included the original wound. A large flap was turned down, exposing a sub pericranial hematoma and a diploic artery about the middle of the fracture still spurting. This determined the point at which I entered the skull. A button of bone was removed and an extra dural clot found lying over the angular gyrus. The clot was about the size and thickness of a silver dollar, firm and very adherent to the dura. I was unable to remove it with-



X-Ray showing linea fracture of the left side of the skull. Diagram of the brain showing the relation of the fissures of Sylvius and Rolando and the Angular gyrus to the fracture. Drawing by Dr. Jno. King, Wesley Memorial Hospital.

out clipping away the bone. I was compelled to plug the spurting diploic vessel with wax before I could control it. There was no evidence of intra-cranial pressure so I did not open the dura. I explored forward toward the lower end of the fissure of the Rolando but found nothing. The wound was closed except for a rubber dam drain running from the plugged diploic vessel to the lower end of the original wound.

The record on the chart shows that she was absent from the ward just one hour, and on her return, her condition was noted "the same as before operation." She reacted almost immediately as there was no ether given during the last half hour of the operation.

I want to emphasize the importance of reasonable haste and as little ether as possible in these cases. Get the patient back in bed as soon as possible.

After the operation her condition improved steadily, but later it was found that she was unable to call the names of objects about the room with which she had been perfectly familiar before the accident. There was marked word and object blindness present. She was able to frame any or all the words she had ever known but could not remember the names of objects. She would say "I know what it is but I can't call it." When asked to write the name of an object (a watch) she started by writing a "W" and then failed.

The word and object perceiving center is located in the angular gyrus around the posterior extremity of the fissure of Sylvius on the left side in the right handed and the right side in left handed people. I feel sure there was a contusion, if not a laceration, of the corticle and perhaps the subcorticle substance at this point and some irritation over the lower end of the Rolandic area which accounted for the face, neck and arm symptoms.

We have been trying to re-educate the center and also educate the center on the right side by having her use her left hand. We have given very little medicine except small doses of syrup hydriodic acid. We are gratified at the progress she has made, for she can now name almost any object with which she is familiar. She is also beginning to read and enjoy picture shows.

### AN ORTHOPEDIC CLINIC.

One of the most interesting clinics at the Emory University is that of Orthopedic Surgery. The doctors in charge as well as the students who receive their clinical instruction here, have interesting cases to handle. With the laboratory and the X-ray adjoining, the doctors are aided in making a correct diagnosis. It is a rare occurrence that any student fails in attendance.

At one of the regular clinics the following patients received attention, showing the varied and interesting work which stimulates both the doctors and students to put forth their best efforts.

#### New Cases.

1. James G. Infantile paralysis. Examination, Discussion. Referred to pediatric department.

2. Mary Ann B. Tubercular wrist. Examination. X-ray taken. Discussion. Treated with rest by applying plaster of Paris cast from fingers to elbow and advice given as to diet and hygiene.

3. Flat feet. Examination and discussion. Treated with felt pads and overcorrecting feet with retention by adhesive strapping and recommending that shoes

have raised soles and heels on inner borders.

4. Mrs. G. S. G. Referred to this clinic by Grady City Hospital. Colle's fracture with subsequent ankylosis. Discussion. Student's attention was called to the importance of proper reduction, light splinting and early mobilization.

5. Alfred S. Tuberculosis spine with suppurating sinus. The students attention was called to the importance of an early recognition of tubercular bone disease. The various symptoms were explained and demonstrated and the unrecognized true condition at the beginning of the disease with the failure of being able to give immediate relief to this patient at the present advanced state was a good lesson to every one present.

#### Old Cases.

6. Mrs. G. Flat feet, repadded and re-strapped with a review of home exercises.

7. Babe D. Fluctuation around knee joint, specific. Referred to Grady for operation.

8. Myositis of right leg. Treated with electric baker and gentle massage.

9. Nora W. Old fractured elbow, joint is ankylosed. Treated with electric baker, massage and mobilization.

10. Tillman S. Old dislocation and fracture of elbow; joint ankylosed. Treated with electric baker and massage.

11. Miss D. Old tubercular elbow, suppurating sinus. Dressed and replaced in plaster Paris splint.

12. Mrs. F. Old Fracture, lower third of ulna and radius with subsequent ankylosis of wrist due to prolonged immobilization. Treated by mobilization.

13. Lester H. Old Colle's fracture. Treated by electric baking and massage.

14. Cora-May M. Scoliosis—Active resistive exercises to strengthen the muscles on convex side, and passive stretching of muscles on concave side.

15. H. F. Infantile paralysis. Extensor longus digitorum. Operation suggested.

16. Carl D. Osteo-arthritic knee. Treated with electric baking, massage mobilization.

—Toepel.



**NEWS ITEMS.**

The many friends of Dr. Hansell Crenshaw, Atlanta, will be glad to learn that after several weeks' absence from work, due to illness, he is again back at his office each morning from 10 to 1. His afternoons he has reserved for neurological consultations.

Dr. A. B. Greenwood and Dr. Jas. A. Keiger, announce the opening of offices, 311-12-13 Dixie Building for the practice of Urology, Syphilology and Dermatology, Greensboro, N. C.

Dr. A. Roy Hogg, formerly of Haralson, Ga., has recently located at Senoia, Ga., for the practice of his profession. Dr. Hogg is as enthusiastic booster for the Journal and for the Association. We need more like him.

The Banks County Medical Society gets the blue ribbon. Dr. O. N. Harden of Homer, Ga., Secretary and Treasurer of the Banks County Medical Society was the first of the County Secretaries to render his Annual Report for the new year. At their Annual Meeting, which was held early in December the following officers were elected:

Dr. M. P. Deadwyler, Maysville, Ga., President; Dr. Geo. O. Castellau, Maysville, Ga., Vice President; Dr. O. N. Harden, Homer, Ga., Secy. and Treas., and Delegate to the State Association.

The members of this Society are: Drs. M. P. Deadwyler, Geo. O. Castellau, O. N. Harden and J. S. Jolley.

At the regular Annual Meeting of the Clarke County Medical Society, held in Athens December 3rd, 1920, the following officers were elected for the new year:

President, Dr. I. H. Boss; Vice President, Dr. H. I. Reynolds; Secy.-Treas., Dr. Linton Gerdine.

The Censors are:

Term ending December 1921, Dr. S. S. Smith; Term ending December 1922, Dr.

H. M. Fullilove; Term ending December, 1923, Dr. R. M. Goss.

Dr. J. C. McKinney was elected Delegate to the State Association with Dr. W. H. Cabaniss as alternate.

At the regular Annual Meeting of the Fulton County Medical Society, which was held in the Chamber of Commerce Building, Atlanta, on December 16th, 1920, the following officers were elected for the new year:

President, Dr. Frank K. Boland; Vice-President, Dr. R. T. Dorsey.

New member of the Board of Censors:

Dr. J. R. Barfield.

The other members of the Board of Censors are:

Dr. Marion T. Benson, Chairman, and Or. E. G. Jones; Dr. C. E. Waits is the Secretary of this Society, the Secretary being elected every two years.

At the regular Meeting of the Tri-County Medical Society, held in Blakely, Ga., December 5th, the following officers were elected for 1921:

President, Dr. S. P. Holland, Blakeley, Ga.; Vice President, Dr. R. R. Bridges, Leary, Ga.; Secy.-Treas., Dr. J. G. Standifer, Blakeley, Ga.

Censors:

Dr. W. O. Shepard, Bluffton, Ga.; Dr. B. K. Simmons, Blakely, Ga.

Delegate to the State Association:

Dr. C. R. Barksdale, Blakeley, Ga.

Alternate:

Dr. B. K. Simmon, Blakely, Ga.

Committee on Program and Scientific Work:

Dr. C. K. Sharp, Arlington, Ga.; Dr. P. H. Fitzgerald, Blakely, Ga.; Dr. J. G. Standifer, Blakely, Ga.; Dr. S. P. Holland, Blakely, Ga.; Dr. R. R. Bridges, Leary, Ga.

Committee on Public Health and Legislation:

Dr. W. C. Hays, Colquitt, Ga.; Dr. J. S. Beard, Edison, Ga.; Dr. E. C. Smith, Jakin, Ga.

Two of the Counties constituting the Tri-

County Society have recently come into the progressive fold under the Ellis Health Law. A full term Health officer for Blakely County will be selected on January 2nd of the new year. Dr. J. G. Standifer of Blakely is the Medical Member of the Early County Board of Health.

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Dr. C.A. Stevenson of Camilla, Secretary of the Mitchell County Society for 1920 is to be congratulated on the good work which he is doing in an effort to bring into the Mitchell Society every eligible Physician in his County. The old members of the Mitchell County Society are as follows:

Dr. J. L. Brown, Camilla; Dr. J. A. Garrett, Baeonton; Dr. F. L. Lewis, Camilla; Dr. C. L. Roles, Camilla; Dr. C. O. Rainey, Camilla; Dr. J. M. Spence, Camilla; Dr. C. A. Stevenson, Camilla, Georgia. The other eligible Physicians in the County are as follows: Drs. W. S. Hill, Pelham; B. Williams, Pelham; J. R. Simmons, Pelham; A. S. Hargrove, Pelham; J. W. McLean, Pelham Roy Hill, Pelham; C. W. Reid, Pelham; D. P. Belcher, Pelham; O. B. Bush, Pelham; A. T. Stevens, Sale City; Alonzo Akridge, Sale City; Louis Beason, Sale City, and J. P. Carraker, Cotton, Georgia. We wish to assure each and every one of these men that we will be mighty glad to have them as members of their County Society and State Association, for we want every good man in the State to become a member of the Organization.

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Dr. Thomas D. Coleman of Augusta, Ga., Professor of Medicine in the University of Georgia, announces that he has assumed the control and management of the Bad-Nauheim Baths, formerly conducted, in this summer resort, by the late Dr. James H. Honan, and has employed the same force of assistants brought by Dr. Honan from Bad-Nauheim. Patients referred to him will receive the benefit of such medical care as his skill and experience afford, and are requested to bring their histories from their medical advisers at home.

At the December meeting of the Troup Medical Society the following officers were elected for the year 1921.

President, Dr. W. H. Clark; Vice President, Dr. C. W. Harvey; Sec. and Treas., Dr. Enoch Callaway; Delegate, Dr. Wm. R. McCall; Censor, Dr. R. A. Verdier.

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The officers of the Meriwether County Medical Society elected for the year 1921 are as follows:

President, Dr. E. B. Terrell; Sec. and treas., Dr. Frank P. Norman.

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At the recent meeting of the Chatham County Medical Society held on December 14th, the following officers were elected for the year 1921.

President, Dr. Lawrence Lee; Vice Pres., Dr. H. Y. Righton; Sec. and Treas., Dr. E. L. Bishop; Censors, Drs. W. A. Cole, G. H. Lang, H. Rubin; Delegates, Drs. J. W. Daniel, W. R. Dancy.

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December 13th, 1920.

The American Red Cross is desirous of enlisting for service among the children of Eastern Europe a number of medical men.

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## BOOK REVIEW.

Laboratory Manual of the Technic of Basal Metabolic Rate Determinations. By W. M. Boothby, A.M., M.D., and Irene Sandiford, Ph.D., Philadelphia and London: W. B. Saunders Co., 1920.

This book by these workers in clinical metabolism at the Mayo Clinic is just what the title implies,—a manual of charts, tables, instructions, illustrations of apparatus, etc. It is replete with helpful information. The determination of the basal metabolic rate by means of the gasometer and the analysis of gases by Haldane's method, which is the method used by the authors, is given in detail. We recommend this book to those who are now doing basal metabolic rate determinations, and, especially to those who are contemplating doing such work.

—Morris.

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The doctor thinking that he probably had broken the bottle, asked him why the baby had not taken it all.

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ATLANTA, GA., FEBRUARY, 1921

No. 9

### **A REVIEW OF FORTY-THREE GALL BLADDER OPERATIONS WITH REFERENCE TO END RESULTS.\***

R. M. HARBIN, M.D.,  
Rome, Ga.

In undertaking the cure of a patient with a surgical gall bladder, as in many other surgical conditions within the abdomen, we should consider that we are dealing with a terminal pathology, the result of toxic processes radiating for years from certain recognized foci of infection, such as abscessed teeth, diseased tonsils, sinus infection, pyelitis, defective alimentary hygiene, etc.

This train of toxic processes may have been originally set in motion by some general systemic infection such as typhoid fever, septicemia, etc. The patient as well as the physician has perhaps ignored these chronic underlying conditions until the gall bladder infection becomes a major factor and rises to the prominence of colic which compels relief. After the colic and the gall bladder focus have been disposed of, the patient reverts to his original condition unless the infective foci have been "burned out," and if not he continues to suffer from other independent conditions which require to be eliminated in estimating the percentage of cures from gall bladder operations per se. In this review I have undertaken to

differentiate this class of disorders and have confined my investigations to causes of failure, which seem to lie not so much in the operative technique in properly diagnosed cases, but in the failure to break the train of toxic symptoms which were the original cause of gall bladder infection. Surgery should only assume to relieve colic and the collateral effects on digestion. Hygiene requires rebuilding, and toxic foci should be eliminated.

So far as the merits of cholecystostomy and cholecystectomy are concerned both procedures eliminate a cesspool of infection and colic and each has its respective indications. The lessened danger of hernia by avoiding prolonged drainage speaks in favor of gall bladder removal, while profuse drainage of vitiated bile from relief of back pressure seems to give quicker symptomatic relief from cholecystostomy. In jaundiced cases we have found marked relief from drinking great quantities of water with hot baths as a preliminary to operation. Premature removal of drainage tubes seems to delay healing, and we believe the tube should not be removed before ten days; in the meanwhile keep the incision clean by applying dichloramine-T solution. Latterly we have used stab drain in right flank. In this series of forty-three consecutive cases there were seven males and thirty-six females. The youngest was twenty-six, oldest seventy-seven; an average of 44.4 years of age. Of the thirty-six women

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

70% gave history of childbirth. The longest stay in hospital was forty-seven days and the shortest twelve, an average of 22.6 days. The duration of stay in hospital was about the same for cholecystostomy as cholecystectomy. In five cases the presence of gall stones was unexpectedly discovered and operated in the course of other operations, which demonstrates the wisdom of examining the gall bladder in routine laparotomies. Two occurred with hysterectomies, while in three there were pelvic operations. The average weight before operation was 123 pounds, which would indicate that obesity was not such a common accompaniment. So far as is known, two cases of post-operative hernia developed, one in gall bladder drainage and the other in gall bladder removal of an obese patient, in which latter the hernia was repaired.

One case of cholecystectomy for stones was done purely on X-ray findings. Five cases were jaundiced on entering the hospital, but after a time cleared up from drinking water, one of these having an impacted duct obstruction.

From questionnaires sent out there were 32 replies. Of these 78% gave histories of devitalized teeth, 53% abscessed teeth, 31% tonsillitis, 50% rheumatism in some form, 15% jaundice and 50% some form of septicemia.

In practically all of the cases reporting there was a cure of symptoms, of violent digestive disturbance, while there were 13% still suffering with toxic symptoms, and the percentage of cures in these seven cases was estimated, respectively, as follows: 80, 90, 80, 80, 90, 90, 85. These latter were rewritten, with the result that toxic foci still remained in five cases. Two cases had been victims of asthma and expressed themselves as cured, while a third was relieved for a year, but was re-examined and found to be still harboring abscessed teeth and diseased tonsils. There was no mortality in this series of forty-three consecutive operations.

While this review has little or no value as regards statistics, it suggests the probability that a greater percentage of failures of the cure of patients depends more upon a lack of proper hygienic and medical after treatment than any detail of operative technique.

## **SOME ORTHOPEDIC PRINCIPLES IN THE TREATMENT OF WOUNDS.\***

FRED G. HODGSON, M.D., F.A.C.S.,  
Atlanta, Ga.

*The correct use of splints.* Many wounds require splints, whether they are associated with fractures or not, especially to put the parts at rest, to prevent contractures or prevent strain to injured tissues. However, too prolonged immobilization, especially of the fingers, gives very bad results. When a patient comes in with a severe wound, especially if it is associated with a fracture, located anywhere between the elbow and the finger tips, the usual practice is to apply a splint which immobilizes the elbow, forearm, wrist, hand, and fingers. The hand is placed flat on a board and often in the pronated position. This is kept on from three to twelve weeks or more, depending upon the time it takes for the wound to heal. The result is, one often finds a stiff and useless hand when the splints are finally removed. The wrist is stiff, the metacarpo-phalangeal and inter phalangeal joints are practically ankylosed, the palmar arch is gone so that the thumb can not be made to touch any of the fingers, the circulation of the hand is very poor. Some of them are so rigid as to be entirely useless, and no amount of manipulation, massage, or surgical intervention can restore these hands to their normal condition. How much better it would have been if no splint had been used and the patient encouraged to use the fingers and to keep them limbered up. Suppose we did get a malunited or ununited metacarpal or phalanx: this could be remedied much more easily than a rigid, flat hand. A splint for the forearm or hand should never come below the metacarpo-phalangeal joints, except in the case of severed tendons to the fingers or in nerve injuries to prevent contractures. The palm should never be bandaged flat to a splint, but the palmar arch should be preserved by fixing a pad in the center of the

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



palm and strapping with adhesive plaster. This is just as important as the arch of the foot. Supination of the forearm must be preserved. The power of pronation is more easily re-established than that of supination, as the pronators are more powerful than the supinators; also, a hand in supination is more useful than a pronated hand.

No splint should be left on longer than it is absolutely necessary. For example, no splint should be left continuously on the forearm for more than three weeks. It should then be removed, and while the fractured bones (if there is a fracture) are held firmly, active motions of the wrist and fingers encouraged. The splint is reapplied and again removed in one week and active motions similarly encouraged. After four weeks, if splints are still necessary, they should be removed daily for massage and active motions. After five weeks splints should be entirely abandoned except those positively needed to prevent contractures or deformity. If splints are necessary at this late period, they should be removed daily for massage and active exercises.

*The beneficial result of active motions in expelling pus from infected wounds.* I have frequently noted the beneficent effect of active muscular movements in expelling pus from infected wounds. In hand and finger infections where no splints or confining bandages are used, a more rapid healing and less loss of function occurs if the patient is encouraged to use the parts himself. No passive motion should be attempted, for the patient knows by the sensation of pain just how much he can move a joint, but anyone else might cause damage by too vigorous manipulations. In infections in and around the knee joint, in the deep muscles of the thigh, in the calf, voluntary active muscular movements aid in expelling the pus and give good results. There is one notable exception to this rule, however. Very active infections with *streptococci* had best be kept at rest—but the patient himself will not move these cases on account of the pain.

Of course, no good results can be expected from muscular action unless free drainage has

been established by ample incisions. The muscles then by their contraction force the pus out from the cavities and the intermuscular planes. Then, too, the circulation is improved. This is very beneficial, not only in conquering the infection, but in improving the condition of the muscles themselves, and shortening the convalescence. Active motions also greatly limit the extent of the adhesions which occur around the joint, in the tendon sheaths, and in the muscles.

*Too prolonged drainage.* The too prolonged use of Dakin's tubes or of any form of drainage is not an infrequent error. One frequently sees wounds heal promptly as soon as all drainage is omitted. Some of these cases may close too rapidly and an abscess may form, but these may be easily drained by enlarging the sinus or making a secondary incision under cocaine and the convalescence is not delayed. Unnecessary or prolonged drainage has often caused a delay in healing and a waste of time to the patient.

The above principles were brought to my attention by the observation of a large number of war wounded in the base hospitals; but these same principles are just as important in civil practice. A close observation of them combined with careful surgical judgment will secure what we are all striving for—the best end results, in the shortest time, and with the least discomfort to the patient.

---

### IS THE PRESENT FREQUENT REMOVAL OF THE TONSILS JUSTIFIABLE? A QUERY.\*

---

DUNBAR ROY, A.B., M.D., F.A.C.S.,  
Atlanta, Ga.

---

The last word has not been written in regard to the ultimate fate of Waldeyer's ring of lymphoid tissue which exists in the pharynx and naso-pharynx. We move in cycles. The medical profession is in no wise different from other walks of life. The older men in the profession can well remember the operative

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\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

furors which have arisen from time to time, engendered by the belief that the removal of certain organs of the body would remove many of the ailments to which the flesh is heir. These cycles come and go, and after varying intervals the profession begins to study these subjects with a saner judgment and recognize their importance more in the light of further clinical experience.

During the last few years the subject of focal infection has come prominently to the front and the synonym "toxic condition" is now broadly used to cover much of our professional ignorance and bids fair to supplant the term "heart failure" which has so long been used as a general term significant of the cause of death.

Recently the role of the teeth and tonsils in the production of many obscure symptoms has now reached a zenith of much importance. I say obscure symptoms because until more definite pathological changes can be absolutely recognized in these organs, supposed to be the real etiology of the various physical ills, we must still style ourselves empiricists and depend upon our knowledge as existing in the light of cause and effect. I mean by this that because the removal of the appendix or the tonsils or the teeth relieves the patient of certain obscure symptoms, it does not mean that we absolutely know the diseased pathology of these organs before their removal. How many patients are there who have been told by each specialist that certain parts of the body are entirely the cause of their ailment, depending upon the line of work which he daily practices? This statement can not, of course, apply to acute conditions where surgical interference is clearly indicated and where the results are almost 100%. It is the chronic conditions of which I speak, and unfortunately it is the chronic conditions which afflict over 75 % of our patients. That too many appendices, too many tonsils, too many teeth are being unnecessarily removed, must be certainly recognized by every physician who studies his cases and has watched the end results.

Our methods of diagnosis are far from being perfect, and while various instruments of precision are great aids in leading us to a proper conclusion, they may be, on the other hand, instruments to lead us into wrong surgical procedures. No one values the assistance given by the X-ray more than the writer, but he also realizes that this diagnostic help has its limits and frequently may lead us into a wrong diagnosis. Especially is this true about the cavities of the head, and especially the so-called nasal sinuses. Shadows about these cavities are too frequent and too often dependent upon anatomical formations which are not pathological. But the writer is digressing, and these remarks are but preliminary to certain practical observations upon the faucial tonsils, a subject much in evidence during the last few years, and one which needs much more study before our knowledge is complete.

A furor has been engendered among the medical profession for the radical removal of tonsils, due either to the belief that they are of no use in the animal economy or that they are the source of many toxic conditions whose etiology remains obscure.

The main object of this paper is not for the purpose of criticising the present attitude of the profession towards the faucial tonsils, but rather is it a plea for a more thorough scientific study of their physiological functions and their pathological bearing upon other parts of the human economy, and in this way try to evolve a rational therapy for their management, whether medicinally or surgically. Nor have my own studies and observations been able to satisfactorily determine these questions for myself, but it is my endeavor to put others to thinking and to see if the tonsil question can not be managed on a more scientifically clinical basis than has heretofore been the case.

The physiology of the faucial tonsils is still enveloped in much obscurity, just as is also the case with the vermiform appendix. If the good Lord had really not wanted us to have them He could in some way have managed it so we would not all of us have been born with

them. As Dr. Swain of New Haven says, "He might have let a few of us have them so as to keep the laryngologists busy and good natured, but a few of us might have been allowed to get by without them. Surely a much favored few." However, it may also be equally cogently urged that inasmuch as the Lord did give all of us some of this kind of tissue, and as He also did allow animals to have tonsils, not reserving these blessings exclusively for the human race, there is in the great scheme of nature some reason why they are there. Animals and the untutored or uncivilized savage seem to have but little trouble from these directly. Civilized man has his full share almost in proportion to the degree of civilization.

No one has to my knowledge ever recorded a case of absence of the tonsils where everything else was all right. At birth there is a plenty of lymphoid deposit at the base of the tongue. The adenoid or pharynx tonsil comes into prominence first, works out its mission in life when not cut short in its career by the ruthless surgeon of the time, and normally shrinks, practically disappearing analogously with the thymus gland. The faucial tonsils come in for their share of the work for good or ill about the time when the first molar teeth are erupted. They, the faucial, in their turn, have a rise, a maximum and fall in the physiological activity, sometimes showing a marked decrease in size when a serious systemic drain, such as typhoid fever or chronic malaria, makes the system need more white cells. Therefore, the tonsils one and all are not merely residual organs."

The main questions to be considered in reference to the faucial tonsils may really resolve themselves into the following:

1. Their physiology in the light of the present-day studies of their normal function.
2. Are we able to tell when tonsils are diseased and when they should be removed?
3. The method of removal is of small importance compared to the other two questions. Every good man ought to be capable of performing this operation. Even the general sur-

geon and gynecologist have entered the field, and we fear that the time-honored appendix and ovary are already feeling their neglect.

#### *Physiology or Function of the Tonsils.*

This question still remains unsettled, notwithstanding the numerous experiments that have been made to determine just this point. Workers in every country have taken up this question, but, like the etiology of hay fever, it still remains obscure. A few basic facts have been almost universally accepted. Among these is the knowledge that the tonsils are lymphoid tissues and as lymph glands they are a part of the lymphoid system in the animal economy.

Whether the tonsils are organs of excretion or secretion is still an unsettled question. A large majority of clinical observers naturally attribute to them the function of secretion, due largely to their anatomical position in the throat and the ease with which one can satisfy his own mind with the possibility of infection entering the system through the exposed surface of these organs.

The function of the tonsils can not be studied entirely by considering them in their quiescent and normal state, but rather is the function of an organ more readily recognized in studying it in an abnormal and especially acute inflammatory condition.

Acute tonsillitis shows a condition entirely different from that seen when the tonsils are in a quiescent state and the character of this acute inflammation also varies considerably in severity, showing the different degrees of infectious process, if we may use the term infection in reference to this condition. In other words, in order to study what is denominated as chronic disease of the tonsils we must study the acute process in these same organs if we are to have any definite knowledge as to their pathology. It is by no means difficult to say that a tonsil is diseased if we observe it in a state of acute inflammation, but to say the same thing about tonsils in a quiescent condition is another question. An article by Dr. Mink of Utrecht, Holland, translated in the June, 1918, issue of the *Laryngoscope*, has



certainly opened up some new ideas in reference to the tonsils and compelled the thoughtful laryngologist to stop and ponder well these views before sacrificing these organs to a complete tonsillectomy. The germ of his discussion is no better understood than by quoting verbatim the few opening sentences of this article:

"As long as we were in the dark concerning the physiology of the tonsils we had no foundation upon which to build the pathology of these organs. To formulate correct conclusions regarding their therapy was difficult, because most of the data with which to do so was empirical and often contradictory. This was confusing. Until recent times the therapy of the tonsils have been a very much disputed field.

Indication for operation was evident enough when the diseased and enlarged tonsils gave rise to deleterious effects. One was inclined to hold the diseased tonsils responsible for a whole series of infections, but in these cases it was unnecessary to accord the physiological function of the tonsils any further consideration, because it was presumptive that such function was already lost. Hence, the removal of the tonsils could be advised.

"There was great danger, however, that our lack of information as to the physiological function of the tonsils might prove of sinister significance. For if, on the one hand, the usefulness of these organs could be denied, and on the other hand, their deleteriousness affirmed, it was but a short step to their summary condemnation. That this danger was not purely imaginary is shown by the reports from America, where the enucleation of the tonsils has gone on to such an extent that it is spoken of as 'the slaughter of the tonsils.' The fate formerly accorded to the turbinates was now meted out to the tonsils."

Space does not permit us to make an extended review of this most excellent article by Mink, but it is well worth reading in its entirety and will afford much food for the thoughtful clinician. His whole idea is the consideration of the tonsils as lymphoid organs and excretory glands and as such to consider

their pathology more as an infection from within than from without, as from the buccal cavity. A few quotations will not be amiss. He says: "It is known that the form of the tonsils depends upon a thickening of the mucous membrane as a result of enclosure of round cells and the formation of lymph nodules. During the round cell infiltration, the tissue of the tunica propria changes into a reticulum resembling in every way the stroma of lymph glands (Disse). Inasmuch as adenoid tissue can not be differentiated from lymphoid tissue, we may say that the histological structure of the tonsils is the same as that of lymph glands, but the former do not pour their circulating lymph, as do the latter, into a lymph vessel, but into the pharynx. Hence, we find in the tonsils, instead of an effervent vessel, a number of ducts through which the lymph flows into the pharynx. Thus the tonsils may be regarded as an exposed or modified lymph gland.

Henke found that after the injection of a suspension of soot under the mucous membrane of the floor of the nose he was able, upon extirpation of the tonsils 24 to 36 hours after the injection, to find particles of the soot within the tonsils. Similarly, he was able to demonstrate the soot that he had injected under the buccal mucous membrane, in both tonsils and also in the lingual tonsil after a certain time. If too long a time elapsed the soot particles could not be demonstrated in the tonsil tissue; hence, the supposition that they had been excreted.

While other investigators have not always been able to substantiate these results, it is only the positive findings that are operative. The negative do not prove the contrary.

The whole idea of the clinical pathology of the tonsils, according to the writer, is found by first considering the acute inflammation and then see what bearing these have upon chronic diseases of the tonsils. This is certainly the proper attitude to assume if a further study of this subject is to bring any definite results.

In reference to chronically diseased tonsils, I take the liberty of quoting still further from

the arguments adduced by the author as to their proper management. I do this in no wise as reflecting my own ideas, but simply to afford food for thought in that we are so apt to cling to decided views without studying the subject from our antagonist's viewpoint.

He says: "Chronic tonsillitis I ascribe to a lymph stasis as a result of plugging of the excretory ducts. The irregular enlargement of the tonsils so frequently encountered is due to the occlusion of some of the ducts. This occlusion is more easily explained by the retention of the fibrin masses in the lacunae than by inflammatory swelling of the mucous membrane, although it is not my desire to try to exclude such inflammatory swelling in chronic tonsillitis. To remove the fibrin masses in these cases it is even necessary to go further and open up the lacunae and make a free exit for the lymph stream. Of course, where the adenoid tissue is already degenerated and the lymph transudation has been entirely lost such a procedure is out of the question. It should only be employed where the consistency and appearance of the enlarged tonsils would warrant an expectation of a return to normal. To expect this to occur with hard, fibrous, degenerated organs is not to be thought of.

Where the degeneration of the tonsil tissue makes a return to normal function impossible, they can only be regarded as tumors and the question of extirpation taken into consideration. Depending upon our viewpoint as to these tumors hangs the question of approach. If we consider them merely benign they should be removed only insofar as they are obstructive. This will depend upon the amount of space they encroach upon, their interference with breathing, tone production and swallowing. For such cases tonsillotomy is all that is required. A stump is left which is equivalent to a normal tonsil. The space relations are then quite normal and the only difference is that no lymph passes through a stump.

In America, particularly, the tendency has been to remove every vestige of tonsil tissue. Such practice can only follow the view that the

degenerated tonsil tissue possesses some dangerous potentiality, that it is not entirely benign, or that the presence of the tonsil tissue offers a portal of entry for pathogenic germs into the system, with infections resulting therefrom.

Is this view justified?

It is claimed that the diseased tonsils often show an exacerbation of a chronic inflammation with symptoms of general infection. But as we have already seen, normal tonsils will also show this inflammation, which is attributable to the passage of pathological lymph through them. If healthy tonsils show this reaction to toxicity, inflamed tonsils will show it even more readily. It is only in a tonsil that has undergone complete fibrosis that no fluid will pass through.

"Assuming that the pain and other discomforts in an inflammation of such a partially fibrous tonsil are greater than in an inflammation of a normal tonsil, it does not prove the tonsil guilty of the general infection. It must be proved that general infections occur oftener from diseased tonsils than from healthy tonsils. It must be admitted, however, that where the tonsil is diseased the conditions for infection from the pharynx are more favorable than in healthy tonsils because of the absence of the protective action of the lymph flow. On the other hand, complete fibrous hardening is the end-result of degeneration of tonsil tissue, and such condensation and hardening would tend to prevent the entrance of germs from the pharynx into the tonsil, and as the lymph stream is in stasis, entrance of infection by this route is also unlikely. Consequently, a tonsillitis under such conditions would be strictly isolated. A systematic extension of infection would be possible only if the infection could reach the capillaries behind the tonsil fossa. And even then, the infection might be confined to the peritonsillar tissue.

Bacteriologically, the question has not been settled. True, we find pathogenic bacteria in diseased tonsils; but we also find them in other parts of the body. The question can always be

asked: Did the tonsils infect the system, or did the system infect the tonsils?

Extirpation of the tonsil will, of course, remove the discomfort associated with their acute inflammation, but that is purely a local proposition and the operation is but of local use, with which we should be satisfied perhaps. But so far as the avoidance of general infection is concerned as a result of removal of tonsils we should put such thoughts aside. The fear that if, in the course of a tonsil enucleation, some tonsil tissue is left behind which may serve as a source of general infection, plays no importance at all from the standpoint of the views here advanced.

The author thus sums up his ideas:

"To sum up, we find that viewing the tonsils as lymphatic transudation glands throws a great deal of light upon their pathology. The tendency has been to regard the tonsils as useless organs, notwithstanding that we did not know what their function is. No organ should be condemned merely because we do not know what purpose it serves. I have said nothing regarding the practice of American operators in their tonsillectomy to also remove the capsule of the tonsil—a procedure that has any reason only if we consider the tonsils as malignant tumors. This procedure will shortly condemn itself (in the July 1916 number of the Laryngoscope cases of lung abscess following tonsillectomy are described). But even an intracapsular tonsillectomy, although an operative method that may be justified, is only to be employed when, upon scientific grounds, a death sentence against an otherwise useful organ must be pronounced."

Whether these views are correct or erroneous I am in no position to say but I do believe that the tonsil should receive more consideration before they are thoroughly tonsillectomized.

The practical question that we as physicians, especially we as laryngologists, wish to decide is whether the faucial tonsils are a menace or a protection to the human economy and if they are a menace only when they are diseased, is there any way we can positively tell when such a condition exists. So far we must admit that no one has as yet devised a method whereby we may say that the tonsil is diseased and this one is not diseased. The tonsils with their fol-

licles and their phagocytes must certainly be ranked in the same category as lymph nodes. Because we can squeeze yellowish white and sometimes cheesy particles from the crypts of the faucial tonsils, does not necessarily mean that they are diseased, otherwise there would not exist a healthy tonsil in any individual's throat for such secretion can be expressed from every tonsil and this is a product of its physiological activity and not indicative of pus in the tonsil.

Dr. French of Brooklyn, N. Y., has devised a method in his attempt to show when a tonsil is diseased and when not diseased and by this method to indicate what line of treatment should be pursued. It consists in a transillumination in a dark box of an excised piece of tonsil and by different degrees of shadow darkness he determines the pathology of the tonsils. This is probably a step in the right direction but unfortunately few laryngologists will go to so much trouble when it is so easy and so remunerative to excise the whole tonsil.

Even though we may not be able to say positively when a tonsil is diseased yet there has been implanted in the minds of the medical profession a feeling that these faucial organs are in some way accountable for the various obscure toxic conditions so frequently afflicting the human race. That most marvelous beneficial results sometimes follow the removal of tonsils must be admitted by all even though we cannot explain this proper hoe. On the other hand there are numerous cases where the patient is not benefited after their removal and in some cases made worse, but unfortunately for the profession these cases are seldom reported. It is much more characteristic of human nature to report its successes than its failures.

The writing of this paper was not prompted from any "holier than thou" feeling but simply to engender into the minds of the medical profession some thoughts about this subject and not to consider as settled this question of the removal of tonsils.

In order that you may not be afflicted with only the views of the writer I have taken the liberty of quoting the opinions of some of the prominent laryngologists in other parts of the country where this same subject has been dis-



cussed and where there is still no unanimity of opinion.

Two notable papers were read in Chicago last year, one by Dr. Boot on the removal of tonsils in children and the other by Dr. Shambaugh on their removal in the adult. I take the liberty of quoting these gentlemen verbatim. Dr. Boot says: "There is no doubt of the fact that the tonsils are more active in childhood than in later life. If a tonsil is normal up to the age of puberty it becomes so largely fibrous than in adult life it is of little or no importance functionally. The younger the child the more active the tonsil, and the more we should hesitate about advising tonsillectomy. The ease with which the tonsils enlarge during any infection of the throat in children shows them to be very active. The fact that many of these enlargements will subside with proper attention seems to be largely overlooked by the general practitioner and at times even by men devoting themselves to children's diseases. If a child with acutely enlarged tonsils is put on syrup ferri iodidi for two or three weeks, a wonderful reduction in size often follows, and many children with enlarged tonsils but with no cheesy plugs or pus in the crypts should be treated before deciding that tonsillectomy is needed. We are often asked to remove tonsils in children because of habitual colds. Unless the tonsils are so large that they obstruct the nasopharynx, or unless there are other reasons for their removal, I discourage tonsillectomy in such cases. It has not been my experience that removal of tonsils influences head colds, unless they are large or plainly infected. Removal of adenoids in such cases is another problem."

"There are many islets of lymphoid tissue scattered over the pharynx, and especially behind the posterior pillars. These islets seem to be particularly prone to compensatory enlargement if the tonsils are removed in early childhood. The condition that results is much like chronic granular pharyngitis from any other cause. This is one of the disadvantages that should be kept in the mind in recommending tonsillectomy in children. Hypertrophy, the classic indication for tonsillectomy, may or may not require the operation. If the tonsils are so large that they obstruct the nasopharynx,

remove them. If they are the projecting kind that on cursory examination seem large simply because they are all seen and no part is hidden behind the anterior pillar or in the velum, then it matters little whether they are removed or not. These are the easiest removed, with the least resulting deformity and ordinarily with no particular change in the child's condition. Such a tonsil is rarely the seat of a focal infection or the cause of a tubal occlusion. It can be removed by any method with perfect satisfaction, and is the kind that leads the occasional operator to think he is capable of doing tonsillectomy.

"Operate only for definite disease. Be sure the condition of the tonsil is the cause of the disease. Don't destroy a functioning organ unless the gain more than offsets the loss. The younger the patient, the more carefully the need of tonsillectomy should be established."

Dr. Shambaugh says: "It is evident, therefore, that there may be cases where neither from the history of acute attacks of tonsillitis or from the local findings in the tonsils is there any positive evidence of tonsil infection, and still they may be the seat of an infection capable of producing the most serious systemic trouble. It is this class of cases where the indication for removal of the tonsil is the most difficult to work out. Because such cases are known to occur must not be construed as an indication for indiscriminate tonsillectomies in cases suffering from systemic infection. Only in cases where the systemic infection is of a serious character and where a careful search by a competent internist has failed to discover any probable focus of infection, should the advice be given to have the tonsils removed. The operation for the removal of tonsils in adults is by no means a minor operation, and while the indications for this operation have been greatly increased by a better appreciation of the menace existing in tonsils when the seat of chronic infections, still it is quite evident that the indiscriminate removal of tonsils in adults is to be discouraged. The decision to remove the tonsil can be reached in a great many cases only after a careful investigation, which, to be complete, requires the co-operation of the internist."

In the discussion of these papers Dr. Elmer

L. Kenyon who has written so clearly on this subject of the removal of tonsils and its effect upon the singing and speaking voice had these very interesting observations to make.

"Last winter he examined some forty or fifty tonsillectomized throats, with the purpose of determining exactly what had happened to the palatoglossus and palatopharyngeus muscles. In that series of cases five voices were found to have become permanently nasalized. That is a terrible percentage. If that ratio held in all operations it would mean that one out of five had permanently nasalized voices; but, of course, that is impossible. These findings did not represent at all the true percentage, but they almost certainly did show that there was more injury to the speaking voice following tonsillectomy than any of us had thought. In all of these cases the trouble with the voice had resulted from a permanent injury to the palatopharyngeus muscle. That muscle had been pulled to one side and become adherent to the outer wall, with the effect that the soft palate was held down, making it impossible for it to move back to the posterior pharyngeal wall on phonation."

If, then, there seems to be so much diversity of opinion among the best men as to the indications for the removal of tonsils, does it not behoove us to give this subject a more careful study before we rush madly into the removal of every tonsil which comes to us for an honest clinical opinion? Dr. Charles W. Richardson of Washington, D. C., has recently read a paper before the American Laryngological Society in which the following statements are made:

"It is hardly necessary to state that the operation for enucleation of the tonsils is a major operation of some gravity, having immediate and remote possibilities of danger to the welfare and life of the patient, and therefore should not be entered into without well defined and justifiable cause for their removal. I cannot but contemplate the removal of the tonsils which are apparently healthy, for the reason that they may prevent systemic infection, or because they may be the probable source of general infection, without a certain amount of misgiving. It seems to me, therefore, that one should most conscientiously consider every case wherein enucleation is suggested for chronic systemic infec-

tion, if the tonsils are not enlarged or show evidence of local pathological changes, and weigh carefully the clinical evidences, the possible existence of other infective foci, and the experience of the operator in previous cases of a similar character, as to the results obtained, before committing oneself to the suggestion of operative intervention."

The writer in closing can do no better than quote verbatim the views of Dr. Henry L. Swain of New Haven, Conn., who last year read a most instructive paper on this same subject and whose summary has received my hearty endorsement:

"First, inasmuch as many tonsils require removal, when this is necessary there is no way as good nor anywhere nearly as satisfactory from every standpoint as tonsillectomy.

"Secondly, by preference, whenever I can, I prove the necessity for graver procedures by first trying the more conservative. By this latter I often succeed, and I think it only fair to infirm, or delicate, or timid folks, to do the easiest way for them. They have a right not to be dragged through the more serious ordeal when unnecessary.

"Thirdly, in children, especially under six or eight, one should be just as thorough as is possible—if necessary reoperating, in order to get rid of all adenoid or third tonsil. Unless very large or the cause of much trouble, the faucials are allowed to remain. When the child is under the anaesthetic, some operators always remove the tonsils when operating for adenoids. By simply seeing that the plica is freed from the tonsil, and the tonsil from adhesion to the pillar, small unsuspected tonsils can certainly quite safely be allowed to remain and do some good to the growing child.

"Fourthly, every tonsil worthy of the name will at some time have thick white cheesy matter in its crypts, large ones almost always. This will almost always squeeze out when the tonsil is snared out in operation, quite generally it appears when a tonsil is squeezed by a spud or by the edge of a tongue depressor. To accept this as the criterion for operation, means that you must remove every tonsil, for as we have just said this probably happens at some time to every tonsil. Simply slitting up a crypt or two or punching out the partitions between them

will remove this tendency to accumulate and, therefore, one indication for tonsillectomy. If accumulation continues, remove, but to say that because once or twice a year a simple sore throat occurs, or a bit of accumulation is found that often, is not to my mind a logical indication for removal *in toto*.

"Fifthly, it would seem only fair to think that we all ought to remember and explain to our patients—and this applies alike to internist, surgeon, and specialist—that too much must not be promised or expected as a result of the tonsillar operation, for otherwise we greatly mar the splendid work done in our own circle and elsewhere, to perfect the operation of tonsillectomy, doing thereby a great injustice.

"Finally, would it not be a most beneficent action if by any chance some of this effort which the world over has been spent on the mere mechanical aspects of removal of the tonsil, could be diverted to studying the broader question, whence come the germs which get into noses and throats and make all this trouble. They come from some given source, to be sure perpetuated by carriers of the human variety, but is it too Utopian to expect that some of the tireless workers in the laboratories may discover just this source of trouble, and as was the case with malarial parasites, also a means to prevent their growth and spread. May God speed the day."

#### DISCUSSION ON THE PAPER OF DR. DUNBAR ROY.

*Dr. Newton Craig, Atlanta.*—With reference to what Dr. Roy said about tonsils and adenoids, I wish to say that I think in the removal of the tonsils in children it is just as essential that we make a careful diagnosis and not subject these little children who come in to tonsillectomies, simply because they may have slightly enlarged tonsils. I thoroughly agree with Dr. Roy on that point.

#### GUN SHOT WOUNDS OF THE CHEST AND THEIR TREATMENT.\*

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Prior to August of 1916 gunshot wounds of

the chest were not treated by surgical operation, but during the last two years of the recent war there were great changes in the treatment of these cases. A study of statistics of previous wars as to wounds of the chest disclose some interesting facts, first that there has been a marked increase in the percentage of penetrating wounds of the chest with the advent of the high velocity missile, and much more marked decrease in mortality, which has been due partially to the modern bullet and somewhat to improved surgical methods.

Mortality of penetrating wounds of chest, of cases coming under treatment in previous wars.

English in Crime .....	19.2
Civil War, U. S. Troops.....	62.6
Franco-Prussian, Germans .....	56.7
Spanish American, U. S. Troops .....	24.5
Boer War, British .....	14.0

A study of these statistics will readily show why it was thought that chest wounds were best left alone, but the conditions during this war were entirely different from previous wars. A large percent of chest wounds in the recent war were caused by *shell fragments*, and not by *high velocity bullets*, as in the Boer war, these jagged fragments of high explosive produced great gapping wounds of the chest, causing sucking wounds with pneumothorax, alarming, or fatal hemorrhage, or later perhaps fatal infection by carrying in fragments of clothing and equipment swarming with virulent bacteria, which were our greatest enemy during this war, and consequently the mortality was very high during those first two years, when the treatment consisted of rest in bed, a dose of morphine, and a cough mixture.

As late as 1912, our text books said: (1912 Keen's Surgery):

"The military surgeon will rarely be able to do an intrathoracic operation for bleeding from the vessels of the lung, as operation requires such apparatus as the Fell-O'Dwyer apparatus, or the pneumatic cabinet."

It was this teaching with the low mortality in chest cases of the Boer war, which caused the attitude of *watchful waiting* during those first two years, and which resulted in thousands of death, and thousands of cases of prolonged chest infection and invalidism throughout the allied countries.

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



During 1916 a complete change was made in the treatment of chest wounds, not from the discovery of any new methods, but by the application to those injuries of the general principles which govern the correct treatment of all wounds; namely, their early mechanical cleansing by operation, followed by early closure. Fortunately for the American army, we could and did profit by the experience of our allies, and our surgeons were properly instructed and trained and were prepared to give our wounded men the best available treatment.

Chest wounds comprise about three or four per cent of all casualties, and an accurate mortality per cent is hard to arrive at. It has been estimated that forty per cent of deaths on the battlefield were due to wounds of the thorax, including double pneumothorax, and hemorrhage from large vessels.

The mortality of those cases which reaches a medical unit varies according to location, the highest mortality being at the front line hospitals, which in our army were the Field and Evacuation hospitals. The mortality of these hospitals combined may be estimated at 16 or 18 per cent, though authorities vary. At the Field hospitals they died from hemorrhage, at the Evacuation hospital the cause of death was usually pneumonia and shock, if these cases lived to reach a Base hospital the mortality

was about eight per cent, and caused by infection in the form of empyema or abscess of the lung proper. The final mortality of all cases of penetrating wounds of the chest reaching a medical unit may then be estimated at about twenty-four per cent.

It was my privilege to be senior operating surgeon of U. S. Army Evacuation Hospital No. 4, we were stationed close up to the active front from early in July 1918, until the close of hostilities. The reasons for an evacuation hospital were that, the severely wounded bear transportation poorly, and on account of the nature of wounds and the presence of large numbers of virulent bacteria, it was more practical to take the surgeon to the patient than vice versa, the severely wounded which included heads, chests, abdomens, C. C. fractures of the femurs and joints were always stopped at the nearest surgical units, and if due to the stress of work any cases had to be evacuated unoperated, they were the slighter wounds. It, therefore, fell to our lot to operate upon many chest cases, and the usual time elapsing between wounded and operation was three to thirty-six hours, averaging about twelve hours.

### Types of Wounds.

The types of chest wounds which are most commonly met with in evacuation hospitals are as follows: (1) Through and through wounds

#### A DETAILED REPORT OF SELECTED CASES FROM A SERIES BY DR. T. C. DAVISON, ATLANTA, GA.

1. R. M., PVT., CO. C., 167 INF. JULY 28, 1918.

Description of Wound—Gun shot wound through and through left arm and penetrating left chest fracturing 8th rib, exit left lumbar region.

Time Since Wounded—Thirty-six hours.

Operation—Debridement of wounds of arm, chest opened, fractured 8th rib resected. Lower part of left lung found badly lacerated and bleeding, half of lower lobe was excised and sutured. Two openings found in diaphragm with mass of omentum protruding into chest cavity, omentum resected and openings in diaphragm closed, pleural cleared of blood and chest closed and air aspirated.

Result—Patient died in forty-eight hours of pneumonia.

2. P. L., PVT., CO. B, 166 INF. JULY 29, 1918.

Description of Wound—Gun shot wound right side axillary line between 11th and 12th ribs penetrating abdomen.

Operation—Exploratory laparotomy, the missile grooved the upper border of right lobe of liver and

perforated the diaphragm, entering the chest. Chest not opened.

Results—Developed double pneumonia and died three days later.

3. O. A., PVT., CO. F, 168TH INF. JULY 28, 1918.

Description of Wound—Gun shot wound by machine gun bullet, left shoulder outer side traversed entire length of left lung, and X-ray showed bullet posterior to sigmoid flexure of colon.

Operation—Laparotomy, no injury found to abdominal viscera, the bullet was located, extra peritoneal in left iliac fossa, the posterior parietal peritoneum was excised, bullet removed, wound closed, abdomen closed without drainage.

Results—Pneumonia left lung and recovery.

4. M. E. PVT., CO. C., 13 F. A. Aug. 14, 1918.

Description of Wound—Gun shot wound's multiple, sucking wound in back penetrating chest, foreign body in lung.

Operation—Wounds debride and sucking wounds closed, chest not opened and foreign body not sought.

Result—Patient evacuated after pneumonia.

5. M. M., PVT., CO. A, 120 F. A., Aug. 14, 1918.

caused by rifle or machine gun bullet. (2) Through and through wounds caused by shell fragments. (3) Wounds with retention of large foreign bodies. (4) Wounds with retention of small foreign bodies. (5) Open sucking wound of thorax with or without retention of foreign bodies.

### The Condition of Patient Upon Arrival at Hospital.

The condition of these cases varied a great deal, from a simple through and through wound made by a high velocity machine gun, or rifle bullet with practically no symptoms, to cases of multiple wounds of various organs and portions of the body, with a large gaping sucking wound of the chest, with dyspnoea, cyanosis, probably active hemorrhage and shock.

### Complications.

Practically all of these cases have a pneumothorax, in the simple punctured through and through wounds, it may be absent or slight, but in the sucking wounds of the chest pneumothorax is always present with collapse of the lung. The majority of these cases develop

hemothorax, either at once or about the third day, and were aspirated at intervals if the collection of fluid was at all embarrassing to respiration, frequently chest injuries involved, also the abdomen and its viscera, the diaphragm being injured.

In my series of over fifty cases I was impressed with the frequency of this complication, and often found one or more openings in the diaphragm, with hernio of abdominal viscera. In those cases of chest injuries which were given the so-called "*Expectant treatment*" and their wounds being simply dressed, too often at autopsy it was found that there were serious complications present which could only be ascertained by open operation. In the majority of those cases where the wound of entrance was below the nipple line you could almost be certain that the diaphragm was injured, and the wound being below the sixth rib is a strong indication for opening the chest. When the injury was on the right side of the diaphragm it was usually plugged by the liver, but on the left side in the majority of instances there was

Description of Wound—Gun shot wound chest posteriorly.

Operation—Debridement of sucking wound and closure.

Results—Evacuation in good condition.

6. C. M., PVT., CO. E, 308 INF. Aug. 16, 1918.

Description of Wound—Gun shot wound (shell fragment) of chest and abdomen, wound of entrance left chest mid axillary line.

Time Since Wounded—Twenty-four hours.

History—Patient also suffering from mustard gas inhalation.

X-Ray—Shows large foreign body in epigastric region.

Operation—(1) Wound of entrance debrided and chest opened, omental hernia resected and wound of diaphragm closed and chest wound closed. (2) Exploratory laparotomy—foreign body removed from cavity of stomach and opening in posterior stomach wall closed, also incomplete perforation in anterior stomach wall sutured, abdomen closed.

Results—Patient evacuated ten days later in good condition.

7. M. D., PVT., CO. F, 110 INF. Aug. 26, 1918.

Description of Wound—Gun shot wounds multiple, sucking wound of chest, through and through. Patient in shock.

Operation—Sucking wounds closed, chest not opened.

Result—Died several hours later of shock.

8. J. F. H., PVT., CO. D, 110 INF. Aug. 26, 1918.

Description of Wound—Gun shot wounds multiple, sucking wound of chest, patient in shock.

X-Ray—Foreign body in lung.

Operation—Debridement of wound of entrance, pleural cavity cleared of blood clots, and wounds closed.

Results—Died of shock.

9. A. B., CORP. 152 INF. Aug. 28, 1918.

Description of Wound—Gun shot wounds multiple, sucking wound of right chest.

Operation—Debridement and closed.

Results—Evacuation several days later in good condition.

10. GEO. W. H., PVT., CO. B, 306 M. G. BN. Sept. 3, 1918.

Description of Wound—Gun shot wound right chest posterior with fracture of 7th rib.

Operation—Debridement of wound of entrance, resection of fragments of fractured 7th rib, fragments found inverted and driven into lower lobe of right lung. Lacerated lung tissue excised and sutured. Clots removed from pleural cavity, wound closed.

Result—Evacuated in ten days in good condition.

11. J. K., PVT., CO. B, 109 INF. Sept. 5, 1918.

Description of Wound—Gun shot wound (shell fragment) right shoulder and chest, active hemorrhage from sucking wound. Patient in shock. Blood pressure fifty m.m.

Operation—Infusion of saline on operating table, light anaesthetic, chest opened and bleeding lung

a hernia into the thorax of the omentum, stomach or a coil of intestine. These injuries can be reached and repaired much easier through the chest, than from the abdomen. A large number of chest cases develop pneumonia in forty-eight to seventy-six hours, and our mortality at the evacuation hospital was due mostly to this complication, we never evacuated chest cases until danger of pneumonia was over usually about seven to ten days.

### Shock.

Some of these cases of gaping wounds of the chest with active hemorrhage came to us in shock, many were treated in shock wards and operated on later, some died without operation and some died after operation. I had one case put on my table just three hours after he was wounded, he was bleeding very freely, had a large sucking wound of the chest and was in a state of shock with blood pressure of only

delivered and attempted to suture the bleeding area.

Time Since Wounded—Three hours.

Results—Died on table, operation incomplete.

12. L. H. B., 1ST LT., CO. B, 108 M. G. BN. Sept. 5, 1918.

Description of Wound—Gun shot wound of chest through and through. Wound of entrance at left sterno-clavicular articulation, wound of exit at point of right scapula.

Operation—Wound of entrance small, dressed, wound of exit debrided and closed.

Results—Evacuated in good condition.

13. A. B., PVT., CO. B, 109 F. A. Sept. 5, 1918.

Description of Wound—Gun shot wound right side of chest, posterior axillary line with fracture of 8th rib.

Operation—Debridement of wound of entrance, fragments of rib removed, wound of diaphragm sutured.

X-Ray—Showed foreign body post abdominal—Patient in shock, abdomen not opened on account of condition of patient.

Result—Died in shock ward.

14. W. C. MC. R., CAPT., CO. C, 305 INF. Sept. 5, 1918.

Description of Wound—Gun shot wound anterior chest wall, penetrating pleural cavity, severing 7th costal cartilage near sternum left side.

X-ray—Shows large foreign body three and one-half by 1 cm. lodged in abdominal wall in epigastric region.

Operation—Debridement of wound of entrance and foreign body (shell fragment) removed through wound of entrance. Abdomen not penetrated, sucking wound of chest closed.

fifty, he was given hurriedly a saline infusion, while I attempted to open the chest and check hemorrhage, but he died on the table just as I delivered the lacerated lung. The large vessels in the hilum of the lung were injured, it is this type of case that usually died on the battlefield never reaching a medical unit.

### Gangrene of the Lung With Sloughing.

Unless the lacerated lung tissue was excised some cases, about the fifth day, had evidence of an active internal hemorrhage due to a portion of lung having sloughed, and at times was fatal.

### Infection.

It is recognized that the chief danger to a man wounded in the chest is infection. So if he has escaped death from hemorrhage, shock and pneumonia, now he must run the gauntlet of infection.

The pleural may be infected by the missile

Results—Evacuated in good condition seven days later.

15. T. J. G., PVT., CO. B, 109 F. A. Sept. 5, 1918.

Description of Wound—Gun shot wound chest posterior.

X-Ray—Shows small foreign body in lung.

Operation—Debridement of wound of entrance, blood clots removed from pleural cavity and sucking wound closed.

Results—Evacuation in good condition.

16. J. L. C., PVT., CO. G, 111 INF. Sept. 7, 1918.

Description of Wound—Gun shot wound right side upper, through and through, anterior wound sucking.

Operation—Wound of entrance and exit debrided and closed.

Results—Evacuated in good condition.

17. F. C., PVT., CO. L, 109 INF. Sept. 7, 1918.

Description of Wound—Gun shot wound, chest right side through and through.

Operation—Wound of entrance and exit debrided and closed.

Results—Evacuated in good condition.

18. P. O. S., PVT., CO. C, 44 ENG. Sept. 26, 1918.

Description of Wound—Gun shot wounds multiple, wound of chest right side, 8th rib, perforating chest, diaphragm, liver, and foreign body apparently in abdomen.

Operation—Debridement of wound of entrance wound of diaphragm closed from above, exploratory laparotomy, two perforations in hepatic flexure of colon found and closed, foreign body not found, abdomen closed with drainage. Patient in shock.

Result—Died.



and portions of clothing or equipment carried in by it, through the open sucking wound in the chest wall unless it is closed promptly and securely, or extension from a suppurating wound of the chest wall. The lung tissue itself may be infected by the missile, clothing or splinter of bone which may be retained.

### Indications for Operation.

(1) C. C. Fracture of the ribs. (2) Bleeding from the wound. (3) A sucking wound into pleural cavity. (4) Retention of large foreign bodies within the chest. (5) A large hemothorax which cannot be evacuated by aspiration. (6) Serious internal hemorrhage. (7) Any wound below the sixth rib on account of possible injury to the diaphragm and abdominal viscera.

### Time of Operation.

The best time is as soon as possible after receipt of wound, unless patient is in shock.

### Contra-Indications for Operation.

(1) Small clean punctured through and through wounds of *upper* thorax with absence of serious symptoms. (2) Shock. (3) Pneumothorax of opposite side.

### Anesthetic.

Local if possible, but it is not always practical. Gas-oxygen is the anaesthetic of choice, though it was not often available in evacuation hospitals, so we used ether, and most of these cases stood it well.

### X-Ray.

All patients should have an X-ray examination before operation to determine (1) the presence, size, and position of foreign bodies; (2) the existence and extent of hemothorax and pneumothorax on either side; (3) Cardiac displacement and movement of the diaphragm.

19. G. F. A., PVT., CO. A, 317 INF. Sept. 26, 1918.

Description of Wound—Gun shot wound of chest by machine gun bullet, wound of entrance right chest posterior, at point of scapula, bullet traversed right chest upward, through the neck, and wound of exit on the right cheek.

Condition of Patient—Discoloration and swelling of neck, due to hemorrhage into tissues of neck. Hemothorax right side.

Treatment—Wounds of entrance and exit iodined and dressed, chest aspirated, patient kept in bed and observed for five days, then evacuated in good condition.

No operation.

20. R. A. W., PVT., CO. C, 39 INF. Sept. 28, 1920.

Description of Wound—Gun shot wound upper chest left side, through and through.

Operation—Debridement of wounds and sucking wounds closed.

Results—Evacuated in good condition.

21. H. C., PVT., MACHINE GUN BN., 47 INF. Sept. 28, 1918.

Description of Wound—Gun shot wound extensive, left shoulder, chest and back, with fracture compound comminuted of clavicle, first rib, and transverse processes of 3rd and 4th dorsal vertebrae, pleural cavity open, large hematoma present, pus and gas infection.

Time Since Wounded—Fifty-four hours.

Condition of Patient—Patient septic and condition bad.

Operation—Debridement of extensive wound removing all fragments of bone, a large foreign body

removed from back opposite six dorsal vertebrae, tract laid open, gangrenous muscle removed.

After Treatment—Carrel—Dakin.

Results—Patient developed pneumonia, which cleared up, and patient was evacuated with granulating wound in two weeks.

22. G. N., PVT., CO. C, 11 MCH. GUN BN. Sept. 30, 1918.

Description of Wound—Gun shot wound chest left side through and through, wound of entrance two inches below left nipple, exit left posterior axillary line level 11th rib.

Time Since Wounded—Fifty-three hours.

Operation—Debridement of anterior wound with fragments of rib removed and wound closed. Wound exit excised and chest opened, two perforations found in diaphragm. Diaphragm incised through perforations, upper abdomen examined, groove found in spleen, diaphragm sutured and chest closed.

Results—Evacuated several days later in good condition.

23. J. N., PVT., CO. A, 59 INF. Oct. 2, 1918.

Description of Wound—Gun shot wound chest left axillary line posteriorly, low, wound not sucking, no fracture of ribs.

X-Ray—Shows machine gun bullet in pleural cavity.

Operation—Chest not opened, exploratory laparotomy abdomen and diaphragm found negative, abdomen closed.

Results—Evacuated in good condition.

24. A. D., CORP., CO. M, 39 INF. Oct 2, 1918.

Description of Wound—Gun shot wound left axilla, penetrating chest, left arm and hand, very oedema-

### Operative Treatment.

Unless wounds of the chest wall are small and clean they should always be excised, as otherwise they may suppurate and infection spread along the track of the missile to the pleural cavity. In the majority of cases in excising the parietal wound, it will be found that there is a fracture of the ribs or the scapula, all splinters of bone should be removed and ends of ribs cut off evenly. Frequently excision of wound and closure is all that is needed, but a careful examination of the wound and the X-ray will determine if there are splinters of bone in the pleural cavity or sticking into the lung: if so, a thoracotomy is indicated, and if a thoracotomy is to be done at all it should be done *completely and thoroughly*, the fractured rib resected and the opening enlarged and with a rib spreader the chest opened so that you may see what you are doing. Insert your hand and by palpation discover the presence of splinters of bone or foreign bodies in the lung tissue and to what extent, if any, is the lung lacerated.

The site of thoracotomy is usually through the wound of entrance, however, in those cases where there is a large foreign body retained in the lung at a remote position from the wound of entrance, it may be advisable to excise and suture the wound of entrance, and do a fresh thoracotomy, choosing a position which will give the surgeon the best opportunity of removing the missile. The easiest route is in the anterior or mid axillary line by resecting the fifth rib, this gives a good exposure of the thoracic contents. Blood should be removed from the pleural cavity by mopping. The lung may be delivered through the incision with forceps or sponge holders, the missile if present, should be located and removed through the wound of entry, if possible, if not, incise the lung, remove the missile, and suture. The tract should be excised as well as lacerated lung tissue and then sutured with chromic cat gut. Bleeding is not as hard to control as might be expected, we frequently excised large areas of lung tissue closing with a lockstitch with very little bleeding.

tous and tense, radial pulse absent, large haematoma in axilla.

Time Since Wounded—Fourteen hours.

X-ray—Shows machine gun bullet at bottom of left pleural cavity.

Operation—Left axilla dissected, axillary vein found severed and was ligated at upper one-third, wound partially closed, multiple incisions made through skin and fascia of arm and forearm to relieve the tension, the muscles appeared pale and bloodless, but skin was warm. Chest unopened.

Oct. 4, 1918.

Patient returned to operating room with gangrene of left arm and axilla. Pectoralis major and a portion of pectoralis minor, and a portion of the deltoid and all of the superior flexors of the forearm removed. Patient has septic pneumonia.

Oct. 5, 1918.

Third Operation—Gangrene of entire arm to upper one-third, amputation at insertion of deltoid muscle, flap left open.

Results—Died Oct. 7, 1918, pneumonia.

25. A. C., PVT., CO. L, 59 INF. Oct. 5, 1918.

Description of Wound—Gun shot wounds multiple, left chest posterior sucking wound, debrided, fractured rib excised and wound closed, small foreign body (shell fragment) in lung not sought.

Results—Evacuation in good condition.

26. R. G. M., PVT., CO. F, 59 INF. Oct. 5, 1918.

Description of Wound—Gun shot wound back

injuring spinal cord and penetrating chest.

Operation—Laminectomy 11th dorsal vertebra, cord found partially severed, sucking wound in pleural closed.

Results—Patient paralyzed, evacuated to base.

27. M. M., PVT., CO. F, 59 INF. Oct. 5, 1918.

Description of Wound—Gun shot wounds multiple, right side of chest and back. Large sucking wound in chest. Patient in shock.

Operation—Rapid debridement of wound, three inches fractured rib removed and wound closed. Chest not explored.

Results—Died in shock ward.

28. H. K., PVT., CO. E, 317 INF. Oct. 6, 1918.

Description of Wound—Gun shot wounds multiple, left knee joint opened, blood evacuated, foreign body (shell fragment) removed, irrigated with three-tenths per cent solution of iodine.

Operation—Solution and joint closed. Right side of chest wound closed. Exploratory laparotomy and large shell fragment removed from anterior wall of stomach. Stomach sutured, abdomen closed. Fracture compound comminuted right humerus upper one-third wound debrided and arm splinted. Fracture compound right femur upper one-third, wound debrided and leg splinted.

Results—Evacuated one week later.

29. D. B. E., PVT., CO. C, 11th MCH. GUN BN. Oct. 6, 1918.

Description of Wound—Gun shot wound right lumbar region, fracture of 12th rib, penetrating chest,

Abdomino-thoracic wounds are best handled through the chest incision, as the diaphragm can be reached to a better advantage from above, and if there is any doubt as to injury to the hollow abdominal viscera, also an exploratory laparotomy should be performed. After dealing with the contents of the thorax, the cavity should be mopped out dry, then sponged with ether, and the wound closed by layers, the relief to the patient's embarrassed respiration is instantaneous with closure of the wound. Often after excising the wound in the chest wall it is impossible to approximate the edges of the pleura. In these cases the gap should be closed by muscel, then the skin closed by interrupted sutures.

Rest in bed, give morphine freely, watch for a collection of fluid in chest, and aspirate at intervals of every two or three days if neces-

sary to keep the cavity dry, if the aspirated fluid is sterile all will be well, but if the fluid contains streptococci the chest will have to be drained, which is easily done by removing the suture in the wound and inserting a tube.

These cases were evacuated to the base hospitals after seven to ten days, there the surgeon came in contact with the sequelae as hemothorax, empyema and abscess of the lung. It has been estimated that forty to fifty per cent of these cases developed empyema at the base hospitals and were drained with a mortality of eight per cent.

The opinion of our pathologist as a result of autopsy on many cases both operated and unoperated, was that "serious pathology was too often overlooked in the unoperated cases, and that the operations should be more radical."

lacerating diaphragm, grooving liver, traversing right lung, and missile lodging in anterior chest wall two inches above right nipple. Patient in shock.

Operation—Debridement of wound of entrance, fragments of rib resected, diaphragm sutured into sucking wound posteriorly. Large shell fragment 3 cm. long removed from anterior chest wall, wound excised and sucking wound closed.

Results—Died from shock.

30. V. J., PVT., CO. L, 319 INF. Oct. 9, 1918.

Description of Wound—Gun shot wounds multiple.

(a) Right shoulder with fracture compound comminuted head and neck of humerus. (b) Sucking wound anterior surface right side of chest between 2nd and 3rd ribs. (c) Sucking wound anterior surface right side of chest between 8th and 9th ribs. (d) Wound left chest anterior nonpenetrating. (e) Wound left arm upper one-third.

X-Ray—Shows fracture compound comminuted, head and neck of right humerus, with shell fragment retained in joint, also large shell fragment lodged under the skin at point of right scapula. Two small shell fragments lodged in right lung, one in anterior chest wall left side, and one in left arm.

Operation—Debridement of large ragged wound of right shoulder with removal of fragments of bone and shell fragment from shoulder, large fragment of shell removed from back through counter incision with extensive debridement, wounds on anterior surface of right chest debrided, lower one closed, upper one sutured, the sinus in the lung into the chest wound so that abscess might empty itself later. Debridement of wound on anterior surface left chest with removal of shell fragment. Debridement of wound of left arm upper one-third and removal of shell fragment.

Results—Patient had pneumonia, but was evacuated Oct. 24, 1918.

Convalescent.

31. P. N., PVT., 11 INF. Oct. 16, 1918.

Description of wound—Gun shot wound by machine gun bullet, wound of entrance at point of left scapula, exit right side in mid axillary line, with comminution of 11th rib, sucking wound, and patient in shock.

Operation—Incision through wound of exit, chest opened wide, fragments of rib excised, diaphragm found severed from vertebra and its attachment to ribs to wound of exit, the liver lacerated and protruding into pleural cavity. Diaphragm sutured to chest wall, sucking wound closed, drainage left below diaphragm down to lacerated liver.

Results—Died of shock in a few hours.

32. F. A., PVT., MEDICAL DEPT., 60 INF. Oct. 16, 1918.

Description of Wound—Gun shot wounds multiple.

(a) Through and through both thighs. (b) Wound left arm with fracture compound comminuted humerus. (c) Wound right elbow. (d) Sucking wound chest, entrance right side of sternum level of 5th rib, with fracture compound comminuted sternum, severing two costal cartilages on left, and exit left shoulder. Patient in shock. Wounds due to machine gun bullets.

Operation—Due to shock, only the wound of chest was operated, the legs and arms being hastily splinted. The wound of chest was laid wide open, fragments of the sternum had been driven into the pleura, left lung and pericardium, the fragments were removed, and wound closed.

Results—Died in shock ward in a few hours.

33. D. P., PVT., CO. L, 11 INF. Oct. 20, 1918.



(1) The same surgical principles should be applied to wounds of the chest as to other wounds, namely. A complete early mechanical cleansing before organisms have time to multiply and invade the tissues. (2) That lung tissue may be excised without fear, and (3) That this plan of treatment is in accord with the principles of surgery, and if it could always be carried out that many lives would be saved and much prolonged illness avoided.

Wound of exit of chest debrided fragments of rib removed and wound closed, wound of entrance iodined and dressed.

Results—Evacuated in good condition.

I have reported this series of cases in detail to show, first, the extent of the wounds of the chest and why such a high mortality. Second, that a very large percentage of through and

through bullet wounds the chest should be opened, as fragments of rib are driven into the lung, causing pneumonia, hemothorax and abscess. Third, all sucking wounds of chest must be operated on at once, as they produce a state of shock and will prove fatal. Fourth, practically all wounds below the 6th rib injure the diaphragm, and is a strong indication for open thoracotomy. Fifth, lung substance when indicated can be excised freely and sutured without fear of subsequent hemorrhage.

In addition to the detail report given above, there were about sixteen cases treated in which the small wound of entrance or exit was simply excised and closed. Most of these developed pneumonia, but were evacuated in good condition.

Description of Wound—Gun shot wound right chest penetrating the lung, sucking wound.

Operation—Debridement of wound of entrance. fragments of rib removed, fragment of shell 1 cm. long removed from right lung, wound closed.

Results—Evacuation in good condition.

34. E. F., PVT., CO. K, 101 INF. Nov. 11, 1918.

Description of Wound—Gun shot wounds multiple, wound right chest, mid axillary line, penetrating between 10th and 11th ribs.

X-Ray—Shows small foreign body evidently in liver.

Operation—Debridement of wound of entrance, no fracture of ribs, wound closed, abdomen not opened; the liver will close the small opening in diaphragm, and open operation not necessary.

Results—Evacuated in good condition.

35. W. A., PVT., M. G. BN., 116 INF. Oct. 24, 1918.

Description of Wound—Gun shot wound back, with fracture compound comminuted of 10th rib right, opening the chest cavity, but not penetrating lung.

Operation—Debridement of wound, fragments of bone removed and sucking wound closed.

Results—Evacuated in good condition.

36. C. B., PVT., CO. B. 4th AM. TR. Nov. 4, 1918.

Description of Wound—Gun shot wound back left side penetrating.

X-Ray—Shows small foreign body in left lung.

Operation—Debridement of wound of entrance, no fracture found, sucking wound closed, chest not opened.

Results—Evacuated in good condition.

37. G. R., CORP., CO. F, 358 INF. Nov. 11, 1918.

Description of Wound—Gun shot wound by

machine gun bullet left chest and arm, wound of entrance anterior chest to left of sternum between 3rd and 4th ribs penetrating the chest, wound of exit left axilla, and through and through left arm. No radial pulse, left arm paralyzed.

Operation—Wound of arm excised, thrombosed braehial artery ligated, nerves found not severed.

#### DISCUSSION ON THE PAPERS OF DRS. GEORGE S. MURRAY AND T. C. DAVISON.

*Dr. E. G. Jones, Atlanta.*—In civil surgery injuries which involve the costal cartilages, are a source of considerable trouble, in that there will continue to be sloughing of the cartilage almost indefinitely until you take away all costal cartilages on that side, or wait until sloughing accomplishes the same thing.

Stripping off the periosteum occasionally in breast amputations will entail a most prolonged recovery unless one goes back and resects all the cartilage. I can imagine very well in war surgery that not infrequently wounds of the costal cartilages are the source of infection.

*Dr. George S. Murray, Columbus (closing the discussion on his part)*—I did not quite catch the point that our president (Dr Jones) was trying to make. I did not say that many of the wounded men might reach the hospital with the costal cartilages sloughing or infected. Most of the men with wounds in that region died on the field due to mediastinal injury and hemorrhage.

I thoroughly enjoyed Dr. Davidson's paper and agree with everything he has said. In my own paper I simply dealt with the radical primary operation, and not for the less severe operation where you might resect a wound, excise a wound of the chest wall, or you will find that a splinter of bone must be removed, but if there is any retained bone or missile the operation consists of cleaning out the pleural cavity for which you do not need as wide a thoracotomy as a radical operation.

*Dr. T. C. Davison, Atlanta (closing the discussion)*—I would like to read my conclusions which I did not have time to do. (Read conclusions.)

I think the milk in the coconut when it comes down to a discussion of chest injuries and our experience during the war is, of what value is this going to be to us in civil practice? And many of you think it won't be of any value because we are not expecting another war at once, and if we have another one at once I am afraid you will say, let Bill do it, and not do it ourselves. I think this is of extreme value to us. We have learned much during the war and can apply it in civil practice to this extent. To those who have done extensive work in military hospitals, where patients are shot in the lung or receive stab wounds of the chest, where you have emphysema, and have never seen anything done to them except iodine daubed on the skin and a pad of gauze put on and just strapped with adhesive plaster, they are put to bed, given morphine—in other words, expectant treatment, and if they get well by the grace of God you say, what have we done? We should be more radical in the treatment of wounds of the chest, and where a rib is injured by a bullet, in 99 per cent, of the cases there are splinters of bone driven into the lung which may produce trouble. A stab wound made with a knife blade of any length, or a gunshot wound below the sixth rib, is an indication for opening the abdomen, and in opening the abdominal cavity you may find a hernia of the abdominal viscera into the chest cavity. The remarks of our pathologists in regard to our chest cases were to the effect that we were not radical enough in the cases we did operate on, and that we did not operate frequently enough.

## COMPLEMENTAL BREAST FEEDING OF BABIES.\*

W. A. Mulherin, M.D., Augusta, Ga.

What is complementary breast-feeding of babies? It is a mixed method of feeding—breast and artificial feeding. By “complementary” is meant breast-fed, with the addition of some artificial feeding after the breast nursing. Its field of usefulness is where mothers have not any milk, or have not a sufficient amount of breast-milk for their babies. The mother first nurses her baby, encouraging the baby to take all the breast-milk she can possibly give, then the artificial feeding is given to supply any deficiency of food units that might exist.

### Object and Purpose.

In complementary feeding the breast-milk is considered of prime importance, with the total

breast-feeding its final goal. The artificial feeding is merely used as an accessory, or complement, to the breast, until the main purpose, complete breast-feeding of baby, has been accomplished.

Pediatricians and general practitioners of today are beginning to fully realize that the feeding of babies, for the last ten or twenty years, has been too decidedly artificial. In the past practice, and in the teaching of infant feeding, the artificial side has been stressed to the detriment of nature's method—breast-milk. The reason for same, I believe, is that we did not fully realize what a wonderful piece of human mechanism the breasts really are. We failed to appreciate the true secretory powers of the breasts. Our knowledge of the correct and true physiological working of the mammary glands has been sadly in error. Today, as a result of our improved knowledge, and the reports of most convincing results with complementary breast-feeding, the pendulum has swung back strongly to nature. We have slowly learned that the human breast, in its working, is very much like the cow's milk secretory apparatus. If the proper stimulation is applied at definite regular intervals, thereby making constant demand upon the breasts for more milk; and if in addition to this the breasts are completely emptied after each nursing, and the mother reassured and firmly convinced that she can and must nurse her baby, the breasts respond much more generously than was our former belief. In fact, complementary breast-feeding has successfully established entire breast-feeding in 90 odd per cent of the cases.

### Supplemental—Bottle Instead of Breast.

I wish to emphasize the fact that *complementary breast-feeding is not alternating breast and bottle*. I know of no more pernicious and reprehensible practice, in view of our present knowledge, than the method of alternating the breast and bottle, when the breast-milk is deficient in quantity. It might be well to mention, just here, that rarely is the quality of breast-milk at fault; in the majority of cases it is the quantity that is deficient when mothers are unable to satisfactorily nourish their babies. I might further add that I know of no surer

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

method of slowly weaning the baby than by the practice of supplementing the breast-feeding with one or more bottles.

We have all made the common mistake of supplementing the breast nursing with a bottle of artificial feeding, when the mother has needed help in nourishing her baby. We have conscientiously felt that if we relieved the mother of one entire nursing, the breasts would secrete enough for the next nursing. After a week or more we have found it necessary to supplement a second bottle. Then gradually a third bottle, until finally we had an entirely bottle-fed baby.

It is just *this first supplemental bottle*, followed by alternating the breast and bottle, that has been, and is today, *the vital point in our mismanagement of such cases*. We have failed to realize that it is not help, *in the sense of relief from work, that the breasts need, but just the opposite, more stimulation, more work, and more persistent demand upon them*.

### Modus Operandi.

This extra stimulation, more work and more persistent demand upon the breasts, can be best accomplished by having the baby nurse each breast for ten minutes before offering any artificial feeding. Also by having the mother empty her breasts, by manual manipulation, or finger milking, after the baby has nursed. The baby nursing the mother is the best stimulation for the breasts, and is more effective in producing milk, than all other artificial measures. It is the stimulation the Lord intended to produce the flow of milk from breasts.

We have also failed to appreciate the fact that in emptying the breasts by manual manipulation, thereby making more demand upon the breasts, and incidentally stimulating them, more milk will be elaborated by the breasts; the same as when we milk the cow dry, it helps quite materially in procuring more milk from the cow. The manual manipulation, or finger milking of the breasts, is considered by Sedgwick of Minneapolis to be an important factor in the successful accomplishment of complementary feeding. In his reported cases of complementary breast-feeding, he has been success-

ful in finally securing entire breast-feeding in about 90 per cent of his 2,000 or more cases.

According to Sedgwick, the process of expressing the milk from the breasts is carried out as follows: "The breast is grasped about 1 or 2 cm. back of the colored areola, and a milking motion is carried out towards the nipples." It is surprising how soon the mother gains manual dexterity in milking her breasts. No massage of the breasts is necessary, but, on the contrary, may prove harmful by causing trauma. I need only mention that in milking a cow, the udder is not stroked with the hand, only the teats are squeezed and stripped; also, if we recall the anatomy of the breasts, we can appreciate how useless is the massaging process. We know that the milk ducts, which contain the milk, extend only a short distance back of the areola. Complementary feeding, when properly carried out (and it is simple enough, and easy of accomplishment), will not only increase and maintain a flow of breast-milk, but it will establish a free flow in breasts secreting only a few drops of milk. It will do even more, it will bring back, or reinstitute, successful breast-feeding in cases where mothers have not nursed their babies for six or eight weeks, or longer.

By way of substantiation of this fact, and for general information, it might be well to mention that medical literature contains authentic cases where virgins have nursed babies. Even instances are recorded where the male breasts have performed this function, when the proper demands were made upon them.

In conclusion, I would like to emphasize the following personal convictions:

1. Fully 90% of mothers can successfully nurse their babies, if their minds are firmly convinced of the fact, and if they will properly practice complementary breast-feeding.
2. Conviction and perseverance, and proper knowledge of complementary feeding, on the part of the physician, is necessary for success.
3. It is almost criminal today to put a baby on a strictly artificial feeding, without first giving complementary breast-feeding a fair trial—provided there is no contraindication to maternal nursing.
4. Infant mortality can be, and will be, more



effectively and substantially lowered by the general adoption of complementary breast-feeding than by any other single factor of which I am aware.

5. In cases where mothers have not enough breast-milk for their babies, *do not alternate the breast with the bottle*. It is bad in principle and in practice, and will defeat your purpose by encouraging and allowing the breasts to stop secreting milk.

6. Complementary breast-feeding conforms more to nature, it is simple and easy to practice, and with the results that are being secured today, there is no excuse for any physician not giving babies the benefit of this very much improved method of infant feeding.

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### GROUP MEDICINE, OR A COMMUNITY OF SPECIALISTS vs. A COMMUNITY OF DOCTORS.\*

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A. D. Little, M.D., Thomasville, Ga.

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It is very doubtful if many men have ever mastered every branch of medicine, and it is becoming more and more difficult every day for any doctor to keep abreast of the advances that are being made. Therefore, it seems very logical that it would be best for every doctor to follow the branch that appeals to him, and perfect himself in that particular field. At one time I resented the fact that my patients—and other local doctors' patients—would leave home and go to Hopkins or some other place for treatment, but I am forced to confess that in most instances they were right.

When patients go to Hopkins they simply go where they can get the benefit of a group of doctors who specialize in some particular line, and are associated, and are free of petty jealousies, and are willing to acknowledge that some one man knows more about a particular line than he does, and is willing to tell the patient that the other fellow is better posted in that regard.

There is no earthly reason why every community can't have the same thing. I can

select any man in this Society and let him devote as much time to any one branch of medicine as he has to all branches, and he will be an authority in his particular specialty—will make a greater reputation, live longer, and have more money; but in order for him to do this it is almost necessary for him to have a group understanding—with others who wish to specialize, and they will all succeed, provided they are all Class A men.

Mayo's Clinic is the best example I know of Group Medicine, unless it be Johns Hopkins, and they are both built upon the same principle—and that principle is that five or a dozen heads developed along different lines, but concentrated on a given subject, will come nearer to a true solution than one head with a sprinkling of knowledge in all the branches of medicine.

I predict that Group Medicine will gradually find its way into all communities, for people are wise and are quick to realize advantages to be obtained from such an arrangement, and will seek the place where better work is being done.

You may say that Group Medicine may be done without organization—in other words, you may send a patient from doctor to doctor, and finally get a diagnosis—but that is a poor system. In the first place, all the doctors should be in the same building, where they can easily consult, and when all the data has been collected the whole group should be carefully checked over by the chief of the group.

Some time ago I had a patient who had a constant backache with sciatica and lack of muscular tone in the right lower limb. I had her throat and teeth examined, both reported negative; a pelvic examination was negative. She gave a history of a fall from an automobile and of having been thrown by a horse. I made a tentative diagnosis of a sacro-iliac subluxation, but desiring to give her the benefit of someone better posted in orthopedic surgery, I sent her to an orthopedic specialist, and he proceeded to have her tonsils, teeth and pelvis examined. Each one of the examiners were from ten blocks to a mile apart. The patient was made much worse by the exertion required going from one office to the other, but the

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\*Read before the Second District Medical Society, Thomasville, Ga., August 13, 1920.

orthopedist got a negative report on teeth and pelvis, but the throat specialist reported she had follicular tonsillitis.

The orthopedist did not question the diagnosis, which he so easily could have found to be in error; neither did he question the patient in regard to possible injuries. He wrote me to have tonsils removed. This a first-class specialist refused to do when he looked at her tonsils and learned that she had never had a sore throat, and there were no signs of the tonsils being or ever having been diseased. A sacroiliac support gave this patient relief, and she is able to resume horseback riding, swimming and golf, none of which she could do before she began wearing support.

I do not give this history as a criticism of the orthopedist, but to show that this would surely not happen in an organized group, provided, of course, the group was systematized.

Doctors are notorious for their lack of business acumen, and this is accentuated when in this age everybody outside of medicine has realized the value of organization, teamwork, co-operation and unity as the essential ingredients of efficiency and progress: and it is no wonder that friction, lack of co-operation, jealousies, and in some communities even enmity, has produced a belief among the laity that they can get better service away from home—and it is my honest opinion that Group Medicine is the one remedy to eradicate quackery in whatever guise, chiropractic, hoodooism, and other cults, for sensible people will not deliberately about-face and march back fifty years without some cause, and it is my opinion that the chief cause is too much individualism and the absence of organization and teamwork.

#### FOCAL INFECTION.\*

W. C. Pumpelly, M.D., Macon, Ga.

Systemic and organic diseases may be caused by hematogenous or lymphogenous invasion of tissues by pathogenic micro-organisms from foci of infection which may be acute or chronic; the most important acute foci being the acute infection of the respiratory tract, the genito-

urinary tract, and the skin; but the chronic foci of infection are more important in a way because they are frequently unnoticed, and it is these chronic foci which are responsible for most of the chronic organic diseases. From these chronic foci of infection there is more or less continually and constantly thrown into the circulating blood stream, disease-producing organisms which find their way to distinct tissues and organs and produce chronic inflammatory changes, the seriousness of which is measured by the extent of the inflammatory process, and the length of time that it has existed: and irreparable damage may be done before the existence of active focal disease is suspected.

The more common sites of foci of infection are the tonsils, teeth, sinuses and middle ear, and the less common sights, the urethra, prostate and bladder, the uterine cervix, the fallopian tubes and the nails. The diseases which are produced by chronic focal sepsis are many, the more common, and consequently the more important, being endocarditis, arteriosclerosis, glomerular nephritis, appendicitis, gastric and duodenal ulcer, cholecystitis, hyperthyroidism, diabetes and rheumatism.

The nature of many of the micro-organisms found in chronic foci of infection is interesting in their low degree of virulence, and the group of organisms which most strikingly possess this peculiarity is the streptococcus viridans; a common inhabitant of the healthy mouth where it is saprophytic, and ordinarily does not produce disease, but when it becomes sealed up in a tonsillar crypt or at the apex of a tooth and takes on a parasitic existence, and begins to invade the tissues through the blood stream, then it is able to produce tremendous damage wherever it finds lodgment. And this group of organisms, which under ordinary circumstances is an innocent inhabitant of the mouth, is responsible for many chronic diseases when it becomes a focal organism. But there are other organisms of low virulence which share this peculiarity of being able to maintain a slow smouldering fire, which very gradually and slowly, but surely, undermines the functional activity of the organs or tissue attacked. Of these there are the gonococcus, the treponema

\*Read before the Sixth District Medical Society, Indian Spring, Ga., Wednesday, July 14, 1920.

pallida, the streptococcus rheumaticus, the streptococcus mucosa, the diplococcus catarrhalis, and others. However, this peculiarity does not always maintain; there are other organisms found in foci which are more virulent, and more active, and which produce more severe and more rapidly progressing inflammatory processes.

Now that it is generally recognized that the majority of acute and chronic diseases of internal organs are due to focal infection, it is our duty to search carefully for foci of infection, and eradicate such foci when found. And we should feel that the indications for eradication of such foci is quite as positive and definite as for lancing an acute abscess and evacuating its pus. And with the more common focal sights this can be easily accomplished; focal tonsils should be removed by dissection. Abscessed teeth should be extracted; the sockets curetted, and kept open for a sufficient length of time to allow filling in with granulation tissue. Such teeth can not be treated through the root canal and apicoectomies are only occasionally successful. Infected sinuses should be well drained, and the drainage should be maintained until the sinus is rid of infection. Cases of acute appendicitis, acute peptic ulcer, cholecystitis that come to the surgeon and are operated should not be discharged until they have been gone over and a careful search made for foci of infection; if this is not done the inflammatory process may be simply transferred to another tissue. It has been shown that the eradication of foci will prevent the recurrence of acute appendicitis, peptic ulcer and other diseases.

The subject of focal infection has become so tremendous in extent and the research work that is being done, and has been done, so vast in amount, it is particularly difficult to write a brief paper that will in any way comprehend the subject. In this paper I have endeavored merely to emphasize the importance of searching carefully for foci in all cases of acute and chronic internal diseases. And that complete eradication of the focus is always safer than any attempt at treatment.

Many of the focal cases in my files are of especial interest in showing the importance of eradication of foci and what can be accom-

plished by so doing. I will mention a few of the salient points in several cases:

1. A case of diabetes. W. M., age 50. Sugar, albumin and casts in the urine. He had several septic teeth and pyorrhea. Teeth all extracted in June, 1916. The following month he had a considerable amount of sugar; in January, 1917, he had no sugar, and in February, none. In March his tonsils were found diseased and were removed. His urine has been examined at various times since and no sugar has been found, though he has not been on a diabetic diet for over two years.

2. A case of rheumatism. W. F., 34. Ankles, knees, both elbows and finger joints at times painful and swollen, and occasionally erythematous nodes on legs. Duration about six months. Rough systolic murmur at apex. W. b. c. 12,800. She had diseased tonsils and four abscessed teeth. Both tonsils and teeth were removed in April, 1918. In May, 1918, she said she had a little stiffness in her knees in the morning. In January, 1920, she said she had been free from rheumatism for over a year.

3. A case of endocardial sepsis. W. M., 45. For six months, extreme weakness, with tachycardia and dyspnea on exertion. Four years ago he had appendicitis. He had tonsillitis in 1903, and not since. P. 120. Considerable area of superficial cardiac pulsation. Systolic murmur at apex. Daily afternoon temperature. W. b. c. 16,000. In June, 1916, his tonsils were removed. A small abscessed cavity was found next to the capsule in the right tonsil and a streptococcus was grown from it. In August, 1918, he said he began to feel better soon after his tonsils were removed, and that his temperature and pulse soon became normal.

4. A case of thyrotoxicosis. W. M., 24. Several attacks of abdominal colic, occasional numbness in the arms, palpitation when worried and on exertion. Three attacks of diarrhea; loss of twenty pounds in weight. P. 120. Fine tremor of extended hands; slight swelling of thyroid. His tonsils were badly diseased, and were removed in December, 1918. He began quickly to improve and has been normal since.



5. Another case of thyrotoxicosis. W. M., 22. He came to me complaining of having lost 20 pounds in weight in two weeks. He was very nervous; had fine tremor of extended hands; P. 126; considerable pulsation, neck and epigastrium; blowing systolic murmur at apex. X-ray showed a large abscess on the root of the first left molar. The tooth was extracted in December, 1917. In July, 1918, he was 15 pounds heavier; had no tremor, and P. was 80. Since he has continued well.

6. A case of peptic ulcer. W. F., 32. Stomach contents showed a high acidity and a positive guaiac. X-ray showed an unmistakable ulcer of the pylorus, which had apparently subacutely perforated. She had definite ulcer symptoms. Three abscessed teeth were extracted in December, 1917. She began rapidly to improve, and has had no further stomach trouble since.

7. A case of acute perforating ulcer. W. M., 21. In June, 1919, was operated on for acute appendicitis and the appendix was found to be definitely diseased. He had a large abscess on the second left upper incisor, which, after the operation, he was told to have extracted, but he did not do it, and two months ago was operated on for an acute perforating gastric ulcer.

### RADIUM—REPORT OF CASES.\*

C. K. WALL, M.D.,  
Thomasville, Ga.

In the fall of 1915, while serving my internship in the Touro Infirmary, New Orleans, the Radium Institute of New Orleans was organized, and it fell my lot to have this as part of my service. We began using radium on fibroids and carcinomata of the cervix, and, having seen some very pitiful cases sent home to die, the new treatment of these dread conditions held more than ordinary fascination for me.

One of our first cases was an old white woman, about 55, from some place in Mississippi. I remember she had a hemoglobin of 24 by the Dare hemoglobinometer, a total red cell count of two and one-fourth million and whites to

match. The uterus was the size of a large lemon, and was only a shell, the cavity being easily able to contain a hen's egg. The cervix was a wide, gaping opening. The stench was that so well recognized as that of advanced cancer of the uterus. The uterus was scraped out and 100 milligrams of radium applied for twelve hours. This patient remained in the hospital for two weeks, at the end of which time treatment was repeated, and patient sent home. When she returned four weeks later we could hardly recognize her as our same patient. In place of a pale, wrinkled, anxious-looking face, she had a fairly good color, felt well, and had gained about ten pounds in weight. The hemoglobin was 55 and the red cell count four millions. We treated her four successive months, giving 1,200 milligram hours each treatment, and she was living and well eighteen months later. This is one case which struck me most forcibly.

On my release from the army I determined to give it a try in Thomasville, and, with Drs. Little and Sanchez, we secured a small amount, and in the eight months since receiving it have treated about 50 cases, with varying degrees of success in the light of so short a period of observation.

Case 1. Our first case was a rodent ulcer of the cheek, one centimeter in diameter and slightly ulcerated, three years old, and gradually getting larger. The first application given December 29, 1919, 25 milligrams in two hours, lightly screened, and in four days a distinct reaction was noted around the ulcer. Three applications of two hours each were given two weeks apart, and six weeks after the last application the scab had fallen off, leaving a soft, pinkish, pliable area over the scar of the old ulcer. Six months later the scar is barely discernible on close inspection.

Case 2. Epithelioma of the lower lip, involving practically all of muco-cutaneous margin. Patient a man 68 years old, no palpable glands in submaxillary region of either side, but patient was put in hospital and after thorough radiation of each submaxillary region 600 milligram hours applied to ulcer area on lip, and repeated in fourteen days. Patient five months later shows only small area of soft, pliable scar at site of old ulcer.

\*Read before the Second District Medical Society, Thomasville, Ga., August 13, 1920.

Case 3. Large bleeding fibroid, taking up practically all the pelvis in a colored woman, 40, refusing operation. On January 20, 1920, she was given 1,200 milligram hours intra-cervically at one treatment, and in four days all bleeding had stopped. Second treatment, 600 milligram hours two weeks later, screened with copper and silver, one-half millimeter each. Third treatment given one month later, and no more bleeding to date. Patient at last examination said she felt well, and four months later states she is in good health and cannot feel the tumor.

Case 4. White woman, 38. Beginning carcinoma of the cervix, with fibroid uterus the size of a grapefruit. This patient gave a history of continuous bleeding for five months, and on first visit to us showed hemoglobin 34 by the Dare instrument, red cell count two and three-fourths millions. Patient very weak and anemic. First treatment given January 15, 1920, 1,200 milligram hours intra-cervically. All bleeding stopped after sixth day. Second treatment, 600 milligram hours four weeks later, and no hemorrhage to date. This patient failed to report for further treatment, but writes that she is in good health, doing all of her housework, and no more bleeding.

Case 5. Case very similar to the one first described in New Orleans. An old-looking octo-  
toon, age 48, had been told by her doctor that she could not live, and she had been bleeding continuously for three months. The stench was something fearful, and on admission to hospital she presented a hemoglobin of 20, red cell count of one and one-half million. The cervix presented the typical cauliflower-like surface, bleeding everywhere at the slightest touch. The cervical canal was very difficult to locate. Some of the cauliflower-like excrescences were scraped away, and 1,200 milligram hours given intra-cervically, screened by 1 m. m. of silver. This was repeated on the fourth day in the hospital, and patient discharged on the 7th, at which time the cervix had stopped bleeding and the odor had disappeared. At the end of three weeks I went to see this patient in the country, and found her with her hair parted in the middle, face washed, sitting up by the fire. She said she had had no more bleeding, and was

gaining strength all the time. She has had five treatments of 600 milligram hours each, at monthly intervals, and the patient for the past two months has reported for observation. The cervix is smooth and the uterus normal in size, no bleeding.

I do not mean to say that this cured her, for she has most likely metastases along the lymphatics from the cervix, but the outstanding fact is that she is better. Instead of being a burden to herself and those around her, life has been made worth living, and, even though she dies of cancer some months or years later, she will have had just that much given her by radium. Needless to say these make the most grateful of patients.

Case 6. Mrs. D., of Whigham; 37 years old, married, three children, no miscarriages. Had noticed increased menstrual flow from April to August, 1919. Then the discharge became worse and bleeding did not stop for four months. She seemed to get some stronger in January, 1920, but did not stop bleeding altogether. Patient first seen by me February 7, 1920. The cervix showed a very soft, jelly-like consistency, and bled at the slightest touch. There was a foul odor from the vaginal discharge. She came to the city hospital here February 10, and was given a preliminary curetment of the sloughing cervix, after which radium was applied for 1,200 mg. hours. She went home at the end of her treatment, and for three days bled profusely, after which all bleeding stopped and she began to gain strength and improve in color. When next seen by me, April 1st, she was feeling well and had no bleeding, only a very slight leucorrhea. This patient had been given up as a hopeless case by her local physicians, and came to us by reference of Dr. Cheshire, of Thomasville. Her second application was intra-cervically and of 600 milligram hours.

In any event, this patient has been brought from a bed of gradual death to retake her place in the family. If she has no metastases yet, it is very probable that she may be cured by radium. If not, she will be a grateful patient for even the relief she has been given.

Case 7. White woman, 45 years old; three children, all living; menopause 1917. Noticed bleeding fall of 1918, which was slight at

first and became gradually more profuse, causing progressive weakness and finally prostration. First seen April 12, 1920; 600 milligram hours intra-cervically. Bleeding stopped three days after first application, but one month later, with the second treatment of like dosage, she went into coma after 48 hours and remained so for 72 hours. This is the only case of profound toxemia we have had following treatment with radium, but serves well to put us on guard for such cases. This patient reports feeling well four months later. No other hemorrhage or discharge.

Case 8. Mrs. W., age 54; several children; menopause four years ago. Complains of slight bleeding for past three months, before consulting a doctor. Dr. W. W. Jarrell, of this city, after examination, made a diagnosis of beginning carcinoma of the cervix, and referred her to us for radium treatment. First application March 15, 1920, 600 milligram hours intra-cervically, 48 hours after which all bleeding stopped. Patient had two similar treatments at monthly intervals. She has reported for past three months feeling fine and no more discomfort. This case was the first operable case treated by us, and we believe that she has had every benefit from the radium that she could possibly have gotten from operative measures, and all without the risk and accompanying discomforts of an operation.

Case 9. The next case is a replica of the one just given. Mrs. E., a white woman, age 50; diagnosis, beginning cancer of the cervix. Three treatments 600 milligram hours each at monthly intervals. She, too, reports absence of all bleeding and no discomforts three months after last treatment.

Case 10. Old rodent ulcer left cheek in a white man, 56. Had used arsenic paste on it in January, 1920, and ulcer had become more active, painful, and of a very foul odor. The ulcer one-half inch deep, of the size of a half-dollar. First treatment, unscreened radium 300 milligram hours, distributed over center and sides of the ulcer. Second treatment of like dosage three weeks later. Four weeks after second treatment, this patient passed through Thomasville on a fishing trip. His face showed the ulcer healed, except for small scab over the center the size of a pea.

Case 11. Lupus or tuberculosis of the skin, in a colored woman, age 40. First lesion appeared twelve months ago. She now has five areas the size of 10-cent pieces on right cheek. One treatment to each area, 25 milligram hours each, after which lesion healed completely in two weeks. No recurrence after period of seven months' observation.

Quoting Dr. Russell H. Boggs, of Pittsburgh, we have: "While radium has been the most advanced step made in the treatment of malignancy during the past 25 years, it is not a specific like antitoxin for diphtheria or salvarsan for syphilis, and it is not the positive and certain cure for which we have been looking. Unfortunately, until the last two or three years almost every surgeon operated upon every case of malignancy, regardless of the stage, without first considering any other method. Time has made a marked change, and each year there is a smaller percentage of surgeons removing epitheliomas. I do not mean to say that surgery is never indicated, but I do believe that it is seldom, if ever, indicated in primary cases.

"It is a well-known fact that if a lesion is completely excised a permanent cure will result, such as those on the cheek with a small amount of scar, but in a series of cases the end results are better by radium without leaving any scar. In some locations, as the nose, eyelids, the surgical operation is more difficult, and the deformity is objectionable. The large and deep-seated lesions are always difficult for the surgeon to excise with all the outlying cells, and should always have at least a preliminary treatment. One of the weaknesses in surgery is that in attempting to have a good cosmetic result there is a great possibility of leaving malignant cells. Cutting out the center of a malignant process primarily and leaving outlying cancer cells to be followed by radiation will not give results equal to those obtained by at least treating the case primarily with the radium or the Roentgen ray.

"Epithelioma of the upper part of the face, when a lesion is small, will usually respond to one application of radium. In epithelioma of the eyelid radium can be brought in contact with the lesion, and there is little or no danger to the eye. And before the cartilage is involved



a small amount of radium will effect a cure. Recurrent lesions which have been treated by caustics are very resistant, because the cartilage is usually involved, and the infiltrated scar tissue does not respond so promptly. Cosmetic results in the primary cases which have not been treated by caustics are frequently surprisingly good, even when the lesion is rather extensive. The resulting scar is smooth, pliable and not thick and elevated like that following caustics, or even a cutting operation."

### **CASE REPORT, HYSTERECTOMY UNDER LOCAL ANESTHESIA.**

Operation: Ga. Baptist Hospital; October 12th, 1920, 9:00 A. M.

The case that we offer for operation this morning is: Mrs. McQ, who comes to us with a diagnosis of a uterine fibroid. This woman gives a classical history of a uterine fibroid of the submucous type which is confirmed by gynecological examination.

The interesting feature of this case is the fact that she is also suffering with very decided myocardial changes with a correspondent renal insufficiency. We propose to meet these complications by carefully choosing the anesthetic, and will operate her under local anesthesia (novocain), with a very little, probably  $\frac{1}{4}\%$  gas-oxygen, if necessary. Dr. Collier will remain with us throughout the operation so that he can administer gas if it is needed.

You note that the patient is a very fat woman, having a thick abdominal wall with a deep pelvis. This is the type of case to prove a severe test for local or anoci-association anesthesia.

You notice that the patient has come to the table with eyes bandaged and is sleeping from the effects of scopolamin and morphine,  $\frac{1}{100}$  and  $\frac{1}{4}$  gr. doses respectively, which was given one hour before the time for operation. We make an effort to insist upon perfect co-operation and quiet during operation under local anesthesia.

We first prepare the field for operation and drape with towels for the instillation of novocain. You note that we do the distal block, blocking along the outer borders of both recti, using  $1\%$  novocain.

With this method, we get a very much better relaxation than we used to get when we only infiltrated in the line of incision. We now finish draping and prepare to do a mid line incision.

You note that we caused no pain when we opened the abdomen, not even when opening the peritoneum. Now with very gentle manipulation, we explore the abdominal cavity and pelvis and find a large sub-mucous fibroid growing in the posterior wall of the uterus. There are no adhesions, which will make the operation, under local anesthesia, very much easier. We also find a chronic adhesive appendix, which we will remove first.

You will note that there was apparently no pain even when tying or cutting the meso-appendix. With the appendix removed we now place the patient in Trendelenburg position, which will give a very much better exposure. We use no abdominal retractors and only pack off very lightly.

We next grasp the fibroid which you see causes the patient no pain and proceed to clamp and cut down both broad ligaments. We next free the bladder and proceed to amputate and remove the uterus, doing a supra-vaginal hysterectomy.

You will note that this manipulation has caused the patient no pain which proves again that there is very little sensation to the visceral peritoneum. We have been very careful not to make traction, which always causes pain. We always use a head light in these cases which gives a very much better exposure without traction.

Local anesthesia unquestionably has a very broad field in cesarean section, as there the uterus can be easily incised without traction. Local anesthesia will unquestionably come to be the anesthesia of choice in those cases.

Next we prepare to do the usual closure, without drainage. We often have to be very careful in closing the case where the operation has extended over a long period of time, as the effect of the novocain begins to subside after one and a half to two hours. Patient is not complaining, and we will be able to continue without the aid of gas.

As I suggested, Dr. Collier has remained with us, but as you see it has not been necessary for him to administer gas.

This is the third hysterectomy that we have done under simple local anesthesia. All three cases were ideal for the method, there being no pelvic adhesions. With adhesions it is always necessary to give a certain amount of gas. We have to be extremely careful in the selection of our cases for the simple local anesthesia, as there are several factors which enter into the successful use of local anesthetic. With anoci-association we do not hesitate to attempt most any type of operation.

This patient will be put back to bed and liquid and soft diet will be given as soon as she reacts from the scopolamin and morphine.

These cases very seldom vomit, and suffer the minimum of posterior operative discomfort.

#### **Subsequent Notes.**

November 4th, 1920.

Patient's convalescence has been uneventful, and she was discharged to go home this, the twenty-first day.

We offer this report: First, because it is the second that we have been able to find reported, the first being reported by us in a recent number of the *American Journal of Surgery*; second, to demonstrate that certain types of pelvic surgery can be successfully done under local anesthesia; third, to emphasize that local anesthesia has a definite place in certain carefully selected cases, such as this one, when there are definite indications to ether anesthesia. With a more careful study of cases for operation and a more careful selection of the type of anesthesia best suited, we can unquestionably make safe a certain per cent of cases that would not be safe risks otherwise.

L. W. GROVE, M.D.,

20 Ponce de Leon Ave., Atlanta, Ga.

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#### **"CHIROPRACTIC."**

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A Pennsylvania physician sends us some advertising leaflets issued by a "chiropractor" in

his vicinity. The leaflet is one of those that are printed by the hundred thousand and sold to individual chiropractors, having the purchaser's name printed on the leaflet to give a personal touch. Our correspondent comments:

"I am enclosing an example of the flagrant nonsense which the public is being handed and is accepting. The man whose name is printed on this circular as the chiropractor was a school-mate of mine. He finished his education in the grammar school, while I kept on, not earning a penny until I became 24 years of age.

"On the day I left my home and office in July, 1917, for the army this man, who is now a 'chiropractor,' was perched on a ladder across the street painting a house. Six months later, in camp, I received my home newspaper containing his noisy advertisement. He had acquired the prefix "Dr." and was flourishing. At the present time he boasts of two offices, a flourishing 'practice' and an automobile. In my home town of 50,000, five more chiropractors have established offices within the past three years and are doing business."

We are not sure that any comment is necessary; the letter is an editorial in itself. However, it may be worth while to point out that the profession that is devoted to the relief and cure of human ailments is the only one that will permit men without technical knowledge to ply their vocation with impunity—provided these ignoramuses speciously plead that they are representatives of a new "school" of healing. It is not conceivable that a man whose only training was a six months' correspondence course would be put in charge of a locomotive. It is equally inconceivable that a man with a few weeks' reading of law would be admitted to the bar and entrusted with cases that might involve large financial interests. But a street cleaner or a garbage collector can take a six months' "course" in "chiropractic" and be permitted by the commonwealth to hold himself out as competent to treat the most complicated piece of mechanism known—the human body. —*Jour. A. M. A.*, Jan. 15, 1921.

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### THE NEXT ANNUAL MEETING OF THE ASSOCIATION.

The next annual meeting of the association will be held in Rome, Ga., May 4th, 5th and 6th. The Seventh District Society is co-operating with the Floyd County Society to make this one of the largest and best meetings ever held by the association. The Battey Memorial,

which is to be erected to the memory of Georgia's pioneer surgeon, Dr. Robert Battey, will be unveiled during the meeting. This event should prove of interest to every physician and surgeon in the State, since we honor ourselves in paying tribute to him who paved the way for modern pelvic surgery. Let every member who believes in honoring the memory of the pioneers in our profession mail his check immediately to Dr. M. M. McCord, of Rome, custodian of the Battey Memorial Fund.

Our president, Dr. E. T. Coleman, of Graymont, is using every effort to make this the most successful year in the history of the association. Each and every one of us should co-operate with him in every way possible. We want every ex-president of the association present to encourage and stimulate us to make a greater association.

### ROBERT BATTEY—AN APPRECIATION.

By Howard A. Kelly, A.D., M.D., LL.D.,  
F.R.C.S. (Edin.), F.A.C.S., Emeritus Pro-  
fessor of Gynecology, Johns Hopkins  
University, Baltimore, Md.

Filial reverence and devotion to benefactors constitute one of Man's Highest attributes, which, more than any other quality, distinguishes him from the animals, and is a trait implanted with the divine spark of eternal life.

It is fitting and right at this time to commemorate a great life—that of Robert Battey, of Rome, Ga. (1828-1895), who first broke new soil in pelvic abdominal surgery at Rome August 27, 1872, when he performed the operation which he at first called "Normal Ovariectomy." (See Atlanta Medical Journal, Sept., 1872.) By the term "Normal Ovariectomy" Battey did not mean the removal of normal ovaries, but of those of lesser size, yet still distinguishable as ovaries, in contrast with McDowell's operation, which is the removal of large ovarian tumors in which the ovarian origin is unrecognized.

This was the same year (1872) when another great light broke upon the world of suffering women, when Robert Lawson Tait operated for the first time, opening the abdomen





DR. ROBERT BATTEY

for pelvic suppurative diseases and for the removal of the appendages in order to shrink fibroid tumors.

Battey inaugurated ovariectomy for two different groups of diseases: (1) For grave neuroses, including psychic conditions depending on disturbed ovarian functions; (2) for pelvic inflammatory diseases. (See a report of ten cases in *Trans. Amer. Gyn. Soc.*, 1876, page 101, and 1877, page 279.)

Battey's operation was done with due deliberation, and, after taking counsel, and with a full realization of the responsibility incurred in thus entering a new territory.

There was too that local opposition to the innovation which well might have made one less conscientious and less intrepid hesitate before risking his own life and that of the patient. The risk to the patient was deemed to be great, as the peritoneum in such a case as he had before him was not injured to insult by the presence of any large tumor, supposed to lessen the liability to peritonitis.

Battey's hope was to restore a life wrecked by extreme dysmenorrhoea in a woman of thirty. The result was complete success.

That his first operation was not a mere mo-

mentary impulse is also evident from the fact that he shortly afterward operated upon several other patients, who appear to have been awaiting the outcome of the first case.

The three great outstanding characteristics of Dr. Battey's work were his impartiality, sincerity and humility.

Thus, three times in our land have bold country surgeons broken all precedents and undertaken new procedures, each time in a separate field, and yet, as though by a happy conspiracy, though widely separated in point of time, their combined efforts have served to lay the foundations of a new specialty, that of modern gynecology.

These three American heroes were Ephraim McDowell, J. Marion Sims, and Robert Battey. McDowell was the pathfinder for the major surgery of the abdomen, and brought relief to the army of sufferers from ovarian and fibroid tumors. Sims, with infinite pains, created plastic surgery in overcoming the most distressing of all maladies, vesico-vaginal fistula. Battey opened the door for the relief of all the innumerable minor (in size only) ailments, thus opening the largest territory of all.

What a noble triumvirate we thus have in these splendid fathers of gynecology! Many others have their varying degrees of merit, but none deserve equal rank with these, our three fathers.

Long may their memories live and long may we cherish their virtues!

### SAVE PHYSICAL EFFICIENCY.

The preservation of health, and even the lives, of hundreds of thousands of American children depends upon the enactment by Congress of what is known as the Fess-Capper bill, or some similar legislation. This bill provides for the promotion of physical education in the United States through co-operation with the States in the preparation and payment of supervisors and teachers of physical education, including medical examiners and school nurses. It proposes to help develop the present and future generations of the youth of our country into men and women who will be able physically to perform the duties of citizenship better than those of the present day.

The purpose and aim of physical education in the meaning of this Act shall be more fully and thoroughly to prepare the boys and girls of the Nation for the duties and responsibilities of citizenship through the development of bodily vigor and endurance, muscular strength and skill, bodily and mental poise, and such desirable moral and social qualities as courage, self-control, self-subordination, co-operation under leadership, and discipline initiative. The facilities for securing these ends shall be understood to include a comprehensive course of physical training activities; periodical physical examination; correction of postural and other remediable defects; health supervision of schools and school children; practical instruction in the care of the body and in the principles of health; hygienic school life; sanitary school buildings, playgrounds and athletic fields and the equipment thereof; and such other means as may be conducive to these purposes.

For the purpose of co-operating with the States in the preparation of supervisors and teachers of physical education, including school medical examiners and school nurses, through State normal schools and other State institutions equipped for such service; and for the purpose of co-operation with the States in the payment of said supervisors and teachers, an appropriation of \$10,000,000.00 is authorized, and for each subsequent year, an amount sufficient to allot \$1.00 per child of school age to each State which shall have accepted the provisions of this Act.

The amount allotted to each State shall not exceed \$1.00 per child of school age (six to eighteen years, inclusive).

To administer this Act there will be established in the Bureau of Education of the Department of the Interior, a Division of Physical Education, to be in charge of a director of physical education.

It shall be the duty of the Commissioner of Education, through the Division of Physical Education, to co-operate with the Division of Child Hygiene of the United States Public Health Service.

There shall be established in the Bureau of Public Health Service a Division of Child Hygiene to be under the charge of a commissioned

officer of the United States Public Health Service.

The functions of the Division of Child Hygiene of the Bureau of Public Health Service shall be to study and investigate the problems of child hygiene, to co-operate with State boards of health in medical research, field studies, and practical administrative demonstrations relating to the health of infants and children and to child bearing, and to co-operate with the Bureau of Education, the Children's Bureau, and other recognized agencies dealing with matters related to the health conservation of children and mothers.

It behooves those of us who know the value of physical training of children, and who realize the crying need for medical inspection in schools, to inform the public and their legislators in Washington of the merits of the Fess-Capper bill.

We, the physicians of Georgia, who see the hopelessness of repairing the human wrecks who could have been salvaged, if treated in their youth, know that the ounce of prevention in childhood will save tons of cure in adult life. We must be active for the Fess-Capper bill. Write to Congressman Fess, of Ohio, or Senator Capper, of Kansas, get a copy of the bill, study it, and write to your Congressman and our two Senators in behalf of it.

—Toepel.

### THE AMERICAN CONGRESS ON INTERNAL MEDICINE.

The Fifth Annual Session of The American Congress on Internal Medicine will be held at Baltimore, Md., week of Feb. 21-26, 1921.

The session will be a "Clinical Week" in the fullest sense of the term. Eminent teachers and Laboratory Workers from the Faculties of the Schools of Medicine of The Johns Hopkins and Maryland Universities have generously offered to give Clinics, Ward Walks and Laboratory Demonstrations, covering the entire field of practical and research Medicine. Each day of the Congress—from 8:00 A.M. to 5:00 P.M.—will be filled with instruction given by many of America's leading Internists and Laboratory Workers.

At the same time The American College of

Physicians will hold its regular meeting, at which time a large number of Physicians from all over the United States who have made notable achievements in their special lines of work will receive diplomas from the College. It is expected that about fourteen physicians from Georgia who have been elected to membership in the College will be present to receive their degrees.

Further information may be secured by addressing The Secretary-General, 1002 N. Dearborn St., Chicago, Ill.

### **PULMONARY TUBERCULOSIS.**

The writer has read many articles by specialists in pulmonary tuberculosis condemning the general profession for the great number of cases of this disease that go unrecognized beyond the curable stage. Recently he read one by Dr. Lawrason Brown defending the common garden variety of doctor against this attack, and he extracted from it some measure of personal comfort. But the fact remains that too many people do progress under our care from the incipient to an advanced stage of the disease or go to someone else, who makes a more careful examination and shows us up.

It is our belief that we can cut down the number of both bad results if we will watch carefully every person who comes to us complaining of indigestion, of chills and fever, or neurasthenia, or malaise, or bronchitis. These patients should always make us think of pulmonary tuberculosis, and we should remember that it is in this group that so many mistakes are made. Therefore, when one such comes to us, we should inquire thoroughly into the history and make careful and repeated physical examinations and sputum examinations, and in cases of doubt call in an expert to decide the question. In the meantime we can become expert, too, if we will make it a rule to take every opportunity to go over a chest in the routine way advocated in all textbooks on physical diagnosis.

The excuse for this editorial is the frequency with which patients in every community who have a perfectly evident lesion are treated for something else. During the past twelve months patients have presented themselves who had had

the symptoms mentioned above treated unsuccessfully, when a little questioning would have brought out the classical history and a casual examination would have revealed a fair-sized lesion.

Have you any patients like this on your books, doctor? Look them over. If you do not find any disease, it will at least give you some practice in the art of inspection, palpitation, auscultation and percussion. This is an old story, but we should be reminded of it once in a while.

D. H. DuPree.

### **SUGGESTIONS TO CONTRIBUTORS.**

Under the above title The American Journal of Syphilis gives a page of very valuable information for all contributors to medical journals. On account of the approaching meeting of our association, a gentle reminder to those desiring to present papers is considered of importance just at this time, on account of the following facts:

(1) We now have eight papers, some of which are excellent, written in long hand. Although one's writing may appear legible, it is very difficult to get printers to believe it. (2) Many papers written on the typewriter are single-spaced, with narrow margins and illegible corrections in pencil. (3) News items and other contributions written in long hand tend to increase the errors in initials and in the spelling of proper names. Incidentally, we now have on hand more than twenty-five papers read at the Macon meeting of the association, in addition to those received from the county and district societies. Therefore, please be patient in reference to the publication of your paper. We shall publish every paper of merit and general interest as soon as possible.

#### **SUGGESTIONS TO CONTRIBUTORS.**

"The four rules for the preparation of an article will then be: (1) Have something to say; (2) Say it; (3) Stop as soon as you have said it; (4) Give the paper a proper title."

Let your phraseology express one meaning and one only. Be clear.<sup>2</sup>

*Manuscript.*—Manuscripts should be typewritten, with wide margins, and double-spaced, on one side of paper 8½ by 11 inches in size. The original copy should be sent to the "Journal" and the car-



bon copy retained by the author. Number the leaves consecutively, beginning with the title page. Put your name and address on the manuscript.

**Illustrations.**—Illustrations should be clear, preferably pen-and-ink drawings. Of photographs send a good print rather than a negative. Have lettering parallel to the bottom and top margins, and of sufficient size to be clear if cut is to be reduced. Tracings should be in black-and-white; avoid colors. Write your name on back of each picture; number them in one series (Fig. 1, etc.) to the end, and indicate in margin of the manuscript about where each is to be printed. See that the text references and "figures" correspond. Legends for illustrations should be written on a separate sheet.<sup>3</sup>

**Bibliographic References.**—Give only references actually consulted. If an article is known only through an abstract give reference to the abstract in addition to that of the source. References are printed to be of help in further reading; therefore they must be complete, concise, and correct. Follow the style of the "Index Medicus" and "Index-Catalog of the Library of the Surgeon-General's Office." Be conservative in the use of abbreviations.<sup>4</sup>

**Arrangement.**—As authors are quoted in the text give each a number in the order of citation, and number the bibliographic reference with the same number. Arrange the references in a list at the end of the article in the order of the numbers (see below), or arrange items in alphabetical order according to last names of authors, and distinguish between articles by the same author by the use of the date after his name in the text.

**Footnotes.**—Where an author wishes to use footnotes at bottom of each page instead of the bibliography at end of article, the footnotes should be written in the text, but separated from it by horizontal lines above and below, or *better*, place them at bottom of each page. Use figures to indicate these footnotes, and number consecutively (1, 2, 3, etc.) throughout the article. If in addition to the bibliography mentioned above it is desired to use footnotes on certain pages, these can be indicated by an asterisk (\*).

**Final Reading.**—Let some one other than the author read the manuscript with these directions in mind.

**Shipment.**—Send manuscript flat, postage paid, to the editor.

**Proof Reading.**—Read carefully, with special attention to spelling of names and bibliographic data. Make corrections in the margin only with lines drawn from the revision to the point of change in the text. Answer queries in the proof by making correction or crossing out the query. Verify your references from the sources, not from your carbon copy.

#### REFERENCES. (Read These.)

<sup>1</sup>Billings, J. S.: Our Medical Literature, Trans. VII Intern. Med. Congress, Lond. 1881, i, 54-70.

<sup>2</sup>Mayer, Emil: Medical Literature and its Preparation, Med. Record, N. Y., 1915, lxxxvii, 1019-1021.

Allbutt, T. C.: Notes on the Composition of Scientific Papers. London, Macmillan. 1904.

McCrae, Thomas: The Use of Words, Jour. A. M. A., Chic., 1915, lxxv, 135-139.

<sup>3</sup>Suggestions to Medical Authors, issued by the A. M. A. Press, Chic., A. M. A., [1914 (?)].

<sup>4</sup>Place, F.: Bibliographic Style in Medical Literature, Med. Record, N. Y., 1913, lxxxiii, 157-160.

—The American Journal of Syphilis.

### INSTRUCTIONS TO MEMBERS OF MEDICAL ASSOCIATION OF GEORGIA IN REGARD TO CLAIMS AND DAMAGE SUITS FOR ALLEGED NEGLIGENCE AND MALPRACTICE.

The Association, realizing that groundless claims are increasing against physicians and surgeons for alleged negligence, has arranged to investigate and defend every claim and suit against any member of the Association.

The Association has recently elected Messrs. Bryan & Middlebrooks, of 1203-1206 Candler Building, Atlanta, Georgia, as General Counsel, and it will be their duty and pleasure to investigate promptly every claim made against any member of the Association, and to defend every suit brought against any member, provided the investigation discloses no negligence on the part of the physician. It is not the plan or purpose of the Association to protect any physician who has not fulfilled his duty to his patient, but on the other hand the Association will resist as vigorously as possible every attempt to collect damages from any member who has not been guilty of any negligence or malpractice.

The Secretary of the Association, Dr. Allen H. Bunce, Healey Building, Atlanta, Georgia, will be glad to furnish any information to any member at any time in regard to such matters, and in order to facilitate the making of investigations the following rules have been adopted for the members:

Whenever any patient makes a claim or charge of negligence or files suit against a member of the Association the member should do the following:

1. Immediately notify the Secretary of the claim or charge, giving such particulars as are obtainable.

2. Immediately forward to the General Counsel a copy of any suit or petition served on the member, together with all letters received and written about the claim.

3. As soon as possible forward a detailed report to the General Counsel showing all facts concerning the patient and the claim, together with a complete history of the case.

The members should not:

1. Employ an attorney or incur any expense without authority from the Secretary or General Counsel.

2. Refer any claimant to the Association or any of its officers.

Every member is urged to observe these rules and to co-operate with the Secretary and General Counsel in making the investigations.

Messrs. Bryan & Middlebrooks (composed of Shepard Bryan and Grover Middlebrooks) will be glad for any member of the Association to call on them or write them in regard to any business of the Association.

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#### MEETING OF COMMITTEE ON MEDICAL DEFENSE.

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On Thursday afternoon, January 13th, 1921, there was a meeting of the committee on the medical defense held in the office of the secretary of the association. Those present were:

Dr. M. A. Clarke, Macon, Ga., chairman.

Dr. Eugene E. Murphy, Augusta, Ga.

Dr. E. C. Davis, Atlanta, Ga.

Dr. V. O. Howard, Arabi, Ga.

Dr. Allen H. Bunce, Atlanta, Ga., secretary.

Several damage suits against members of the association were considered and acted upon.

On account of the recent death of Mr. Owens Johnson, the former attorney for the committee, it was necessary to select a new attorney. The firm of Bryan & Middlebrooks, composed Messrs. Shepard Bryan and Grover Middlebrooks, were selected as attorneys for the association for the ensuing year. It was recommended by the committee that a definite set of rules and regulations be adopted by the association in reference to the procedure of members when threatened with damage suits, so that the committee could act more efficiently. Instructions in reference to these suits will be found elsewhere in this Journal.

#### RESOLUTIONS ADOPTED BY THE COMMITTEE ON MEDICAL DEFENSE.

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OWENS JOHNSON.

WHEREAS, The Supreme Ruler has seen fit in His infinite wisdom to remove from our midst our friend, adviser and co-worker, Owens Johnson; and,

WHEREAS, The committee on medical defense of the Medical Association of Georgia has thereby sustained the loss of a true and noble counsellor whose lofty idealism and efficient and wise leadership can never be replaced, and has therefore produced sorrow and sadness in the hearts of all true friends of the medical profession; therefore,

*Be it Resolved*, That these resolutions be placed in the official Journal of the association and that a copy be forwarded to his family.

E. C. Davis, M.D.,

Allen H. Bunce, M.D.,

Committee.

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#### DR. J. S. B. HOLMES DIES IN LAKE- LAND, FLA., JANUARY 19, 1921.

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#### Noted Surgeon Was Founder of Halcyon Sanitarium in Atlanta.

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A telegram from Algood Holmes, of Lakeland, Fla., received yesterday, announced the death in that city of his father, Dr. J. B. S. Holmes, formerly one of the most noted surgeons of Atlanta, and founder of the Halcyon Sanitarium, 17 East Cain street, which was at that time the handsomest private hospital in the South.

Dr. Holmes came to Atlanta from Rome, where he had established a private sanitarium and had gained fame as a surgeon. Building here a temporary hospital, he cared for a growing number of patients, and was finally forced by the growth of his clientele to erect the Halcyon.

Dr. Holmes was a graduate of the Atlanta Medical College, finishing his course there in 1871. He also graduated from Jefferson Medical College, in Philadelphia, in 1877.

Returning to Georgia after his graduation from the Philadelphia college, Dr. Holmes became an instructor in gynecology and obstetrics in the Southern Medical College. He was a member of the American and the Georgia Medical Societies; was at one time vice president of the Southern Surgical and Gynecological Association, and was a president of the State Board of Medical Examiners for several years.

Dr. Holmes left Atlanta because of ill health, going from this city to Valdosta, where he practiced medicine, and from that point to Tampa, Fla., where he established a fine sanitarium for female surgery.

He was widely known in Atlanta and over the State and South, and he had many friends who will regret to learn of his death. No announcement has been made regarding his funeral and interment.

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**MINUTES OF THE SEVENTEENTH ANNUAL SESSION OF THE ASSOCIATION OF SEABOARD AIR LINE RAILWAY SURGEONS.**

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Savannah, Ga., December 1st and 2d, 1920.

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**First Day, Wednesday, December 1.**

The seventeenth annual meeting of the Seaboard Air Line Railway Surgeons' Association was held in the convention hall of the DeSoto Hotel, Savannah, Ga. The association was called to order by the chairman of the Committee on Arrangements, Surgeon Jabez Jones, of Savannah, Ga., and invocation was delivered by Rev. Dr. Neal Anderson, pastor Independent Presbyterian Church. Hon. M. M. Stewart, mayor of Savannah, delivered an address of welcome in behalf of the city of Savannah, and in welcoming words to the Seaboard surgeons he praised the medical profession for its heroic and unselfish work, declaring that the greatest contribution to humanity was rendered by the medical profession. Dr. W. H. Myers delivered the address of welcome in behalf of the medical profession of Savannah. Dr. Meyers is president of the local medical society of Savannah, which is the oldest medical society in the country, having been founded in 1804. The two addresses of welcome were responded to by Dr. L. S. Op-

penheimer, of Tampa, Fla. In his address he touched humorously upon the founding of the association of Seaboard Air Line Railway Surgeons. The chairman, Dr. Jones, then introduced the president, Surgeon L. J. Picot, of Littleton, N. C., who delivered one of the ablest presidential addresses that has been heard in the history of this association.

Dr. Jabez Jones, chairman of the Entertainment and Arrangement Committee, reported as follows:

This afternoon at 3 o'clock there will be given the surgeons and their families a boat ride on the Savannah River and about the busy harbor. Tonight at 9 o'clock there will be given a subscription banquet at the DeSoto Hotel. Ladies invited. Tomorrow afternoon at 3 there will be given an automobile sight-seeing trip over the city for the surgeons and their ladies.

The president suffering from laryngitis, First Vice President Dr. H. C. Dozier, of Ocala, Fla., presides.

"Infection and Degeneration" was the title of a timely paper read by Surgeon H. D. Stewart, Monroe, N. C. This paper was discussed by Surgeons C. B. Wilkerson, Apex, N. C.; H. Aulick Burke, Petersburg; T. H. Hancock, Atlanta, Ga.; Tom Williams, Washington, D. C., and Dr. H. D. Stewart, in closing.

"A Plea for More Careful Consideration of Surgical Cases Before Operation" was the title of a paper read by Surgeon Samuel R. Benedict, Birmingham, Ala. This paper developed into a very extensive discussion, and proved to be one of the most popular papers read before the meeting. It was discussed by Surgeons G. A. Neuffer, Abbeville, S. C.; Vernon Brooks, Portsmouth, Va.; Owen Moore, Charlotte, N. C.; J. W. Smith, Branchville, Va.; H. A. Burke, Petersburg, Va.; T. J. McArthur, Cordele, Ga.; L. S. Oppenheimer, Tampa, Fla.; William Tate Graham, Richmond, Va.; E. P. Lacey, Bessemer, Ala.; H. D. Stewart, Monroe, N. C., and Samuel R. Benedict, in closing.

**WEDNESDAY EVENING, 9:30.**

The banquet was held in the banquet hall of the DeSoto Hotel, beginning at 9:30, and adjourned at 1 A. M. There were eighty in attendance. Dr. Jos. M. Burke, chief surgeon, S. A. L. Railway, acted as toastmaster. Dr.



Tom Williams, Washington, D. C., read a most excellent paper, entitled "The Management of Cases of So-Called Neurosis."

Those who responded to the calls of the toastmaster with impromptu after-dinner speeches were Dr. W. H. Myers, Savannah, Ga.; Dr. Frank L. Eskridge, Atlanta, Ga.; Dr. H. C. Dozier, Ocala, Fla.; Dr. L. S. Oppenheimer, Tampa, Fla.; Dr. M. L. Wood, Montgomery, Ala.; Dr. T. J. McArthur, Cordele, Ga., and Dr. J. W. Palmer, Ailey, Ga. In Dr. Palmer's talk he stated that we had been clamoring for a uniform fee system and foreign transportation at these annual meetings for the past twenty years, with no results, but he was glad to say that there is now in existence an organization that will secure for us these things. The American Railway Association (which is composed of the railway officials of the United States) has created a section on medicine and surgery. This section is represented by a committee composed of chief surgeons from various parts of the country, whom I trust will secure for us our desired transportation and a uniform fee system for all railroads. Through this said committee on medicine and surgery we can take our troubles to the railroad officials and the Interstate Commerce Commission and receive recognition.

### Second Day, Thursday, December 2.

The meeting was called to order by President Dr. L. J. Picot.

Dr. E. P. Lacey, Bessemer, Ala., read a very appropriate paper, entitled "The Medico-Legal Aspect of Railway Injuries." This paper was very widely discussed from all angles by Drs. Frank L. Eskridge, of Atlanta, Ga.; J. H. Miller, of Cross Hill, S. C.; T. H. Hancock, of Atlanta, Ga.; L. A. Hartog, Olar, S. C.; L. S. Oppenheimer, Tampa, Fla.; Chief Surgeon Jos. M. Burke, Petersburg, Va.; Vernon Brooks, Portsmouth, Va.; H. D. Stewart, Monroe, N. C., and Dr. Lacey, in closing.

A resolution was passed extending the privileges of the floor to the visiting physicians.

"Traumatic Hernia" was the title of a paper read by Chief Surgeon Jos. M. Burke, Petersburg, Va. Dr. Burke handled this subject in a masterful way, showing how seldom a traumatic

hernia ever did occur, and that the so-called traumatic hernia by so many doctors while on the stand was only a return of an old hernia, only returning or protruding by some lift or strain or jar. This paper was discussed by Drs. H. C. Dozier, Ocala, Fla.; W. C. Powell, Petersburg, Va.; Olin Sawyer, Georgetown, S. C.; Jabez Jones, Savannah, Ga.; Frank L. Eskridge, Atlanta, Ga.; J. W. Corbett, Camden, S. C.; L. S. Oppenheimer, Tampa, Fla.; H. Aulick Burke, Petersburg, Va.; F. H. Harris, Henderson, N. C.; H. D. Stewart, Monroe, N. C., and Claims Attorney Hon. S. R. Brittingham, Norfolk, Va., and Chief Surgeon Burke, in closing.

It was agreed that the discussions of the other papers be omitted in order to give time for the reading of the remaining papers. "Head Injuries" was the subject of an able paper read by Assistant Chief Surgeon H. Aulick Burke, Petersburg, Va.

"Common Neurosis Following Injuries" was the title of a magnificent paper read by Dr. L. S. Oppenheimer, Tampa, Fla.

"Autogenous Bone Screws" was the subject of one of the most instructive papers read before the meeting. This paper was read by Dr. Jabez Jones, of Savannah, Ga.

The biggest thing before the convention was the address delivered to the surgeons by Hon. S. R. Brittingham, Seaboard's claims attorney, of Norfolk, Va.

"Removal of Foreign Bodies From the Globe" was the title of a paper read by Surgeon-Oculist Arthur G. Fort, Atlanta, Ga. This paper was a valuable one and much appreciated by the surgeons.

"Ununited Fractures" was the title of a very appropriate paper by Dr. Alonzo Myers, of Charlotte, N. C.

It was moved and carried that the association discard the publication of the transactions for 1921.

Dr. J. W. Palmer, secretary and treasurer, made his annual report, and the Auditing Committee, Drs. John W. Smith, of Branchville, Va., and F. R. Harris, of Henderson, N. C., reported that they found the statement correct as rendered.

The Committee on Neurology reported the following deaths by their chairman, Dr. J. B.

Curtis, Orange Heights, Fla.; Drs. G. H. Stubbs, Birmingham, Ala.; M. P. Perry, Macon, N. C.; I. W. McDowell, Savannah, Ga.; W. O. Hitchcock, Dallas, Ga., and W. J. Dismuke, Ocilla, Ga.

The following officers were elected:

President, Dr. H. C. Dozier, Ocala, Fla.; first vice president, Dr. Jabez Jones, Savannah, Ga.; second vice president, Dr. J. W. Smith, Branchville, Va.; third vice president, H. H. Bass, Henderson, N. C.; secretary and treasurer, Dr. J. W. Palmer, Ailey, Ga. Dr. R. B. Epting, Greenwood, S. C., re-elected member of the Executive Committee.

Birmingham, Ala., was chosen as the meeting place of 1921.

A resolution of thanks was voted to all those who contributed in any way to the success and pleasure of this meeting.

There being no other business before the body, the meeting adjourned for the sight-seeing trip to be made in automobiles in the afternoon, to start at the DeSoto Hotel at 3 P. M.

J. W. Palmer, Secretary and Treasurer.

## NEWS ITEMS

At the regular annual meeting of the Muscogee County Medical Society the following officers were elected for the year 1921:

President—Dr. C. Amory Dexter, Columbus, Ga.

Vice President—Dr. J. C. Wooldridge, Columbus, Ga.

Secretary-Treasurer—Dr. W. P. Jordan, Columbus, Ga.

Delegate—Dr. C. A. Peacock.

Alternate—Dr. R. L. Williams.

Censors—Dr. C. A. Dexter, Columbus, Ga.; Dr. J. M. Baird, Columbus, Ga.; Dr. J. R. Youmans, Columbus, Ga.

At the regular annual meeting of the Telfair County Medical Society the following officers were elected for the year 1921:

President—Dr. M. D. Council, McRae, Ga.

Vice President—Dr. LeRoy Napier, Lumber City, Ga.

Secretary-Treasurer—Dr. C. J. Maloy, Helena, Ga.

Delegates—Drs. J. K. Maloy and H. S. Maloy, Milam, Ga.

The Warren County Medical Society has elected the following officers for the year 1921:

President—Dr. Alton W. Davis, Warrenton, Ga.

Vice President—Dr. E. K. Lazenby, Camak, Ga.

Secretary-Treasurer—Dr. F. L. Ware, Warrenton, Ga.

Dr. C. C. Carson of Talbotton, Ga., announces the reorganization of the Talbot County Medical Society with the following officers for the year 1921:

President—Dr. J. B. Douglass, Talbotton, Ga.

Vice President—Dr. J. E. Peeler, Woodland, Ga.

Secretary-Treasurer—Dr. C. C. Carson, Talbotton, Ga.

The Randolph Medical County Society has elected the following officers for the year 1921:

President—Dr. E. C. McCurdy, Shellman, Ga.

Vice President—Dr. W. W. Crook, Cuthbert, Ga.

Secretary-Treasurer—Dr. G. Y. Moore, Cuthbert, Ga.

Delegates—Dr. F. M. Martin, Shellman, Ga.; Dr. F. D. Patterson, Cuthbert, Ga.

Censors—Drs. F. M. Martin, Shellman, Ga.; F. S. Rofers, Coleman, Ga.; J. C. Patterson, Cuthbert, Ga.

Dr. George C. Brooke of Canton, Ga., announces the reorganization of the Cherokee County Medical Society on December 15th, 1920, with the following officers, for the year 1921:

President—Dr. James R. Boring, Canton, Ga.  
 Vice President—Dr. N. J. Coker, Canton, Ga.  
 Secretary-Treasurer—Dr. George C. Brooke,  
 Canton, Ga.

Delegate—Dr. James R. Boring, Canton, Ga.  
 Alternate—Dr. N. J. Coker, Canton, Ga.

The Laurens County Medical Society has elected the following officers for the year 1921:

President—Dr. Jos. J. Barton, Dublin, Ga.

Vice President—Dr. C. A. Hodges, Dublin, Ga.

Secretary-Treasurer—Dr. T. J. Blackshear, Jr., Dublin, Ga.

Censors—Dr. W. R. Brigham, Dublin, Ga.; W. C. Shelnutt, Montrose, Ga.; C. G. Moye, Brewton, Ga.

Delegates—Dr. J. W. Edmundson, Dublin, Ga.

Alternate—Dr. R. J. Chappell, Dudley, Ga.

The Cobb County Medical Society has elected the following officers for the year 1921:

President—Dr. W. E. Benson, Marietta, Ga.

Vice President—Dr. Will Humphries, Acworth, Ga.

Secretary-Treasurer—Dr. L. L. Blair, Marietta, Ga.

Delegate—Dr. E. M. Bailey, Acworth, Ga.

Censors—Dr. C. T. Nolan, Marietta, Ga.; Dr. Frank Mims, Marietta, Ga.; Dr. W. M. Kemp, Marietta, Ga.

The Johnson County Medical Society has elected the following officers for the year 1921:

President—Dr. S. M. Johnson, Wrightsville, Ga.

Vice President—Dr. P. B. Bedingfield, Wrightsville, Ga.

Secretary-Treasurer—Dr. R. Lamar Harris, Wrightsville, Ga.

Delegate—Dr. J. Gordon Brantley, Wrightsville, Ga.

Alternates—Dr. T. S. Page, Wrightsville, Ga.; Dr. R. Lamar Harris, Wrightsville, Ga.

Dr. J. H. Hammond of LaFayette, Ga., secretary of the Walker County Medical Society, reports the following officers for the year 1921:

President—Dr. R. M. Coulter, LaFayette, Ga.

Vice President—Dr. J. P. Wood, Kensington, Ga.

Secretary-Treasurer—Dr. J. H. Hammond, LaFayette, Ga.

Censors—Dr. M. M. Crowder, Kensington, Ga.; Dr. J. A. Shield, Chickamauga, Ga.; Dr. J. M. Underwood, LaFayette, Ga.

The Upson County Medical Society elected the following officers for the year 1921:

President—Dr. C. A. Harris, The Rock, Ga.

Vice President—Dr. R. T. Carter, Thomaston, Ga.

Secretary-Treasurer—Dr. H. A. Barron, Thomaston, Ga.

Delegates—Dr. A. H. Black, Thomaston, Ga.; Dr. E. W. Carter, Thomaston, Ga.

Censors—Drs. A. H. Black, H. A. Barron and E. W. Carter, Thomaston, Ga.

The Elbert Medical Society reports the following officers elected for the year 1921:

President—Dr. D. N. Thompson, Elberton, Ga.

Vice President—Dr. J. E. Johnson, Elberton, Ga.

Secretary-Treasurer—Dr. B. B. Mattox, Elberton, Ga.

Delegates—Drs. W. J. Mathews and A. C. Smith, Elberton, Ga.

Censors—Drs. G. A. Ward, T. H. Gaines and C. L. Alexander, Elberton, Ga.

Dr. C. M. Lewis of Bainbridge, Ga., secretary of the Decatur-Seminole County Medical Society, has sent in his preliminary report. However, the officers for the new year have not been announced.

The Hart County Medical Society reports the following officers for the year 1921:

President—Dr. W. E. McCurry, Hartwell, Ga.



Vice President—Dr. G. T. Harper, Dewey Rose, Ga.

Secretary-Treasurer—Dr. George S. Clark, Hartwell, Ga.

Censors—Dr. J. I. Jenkins, Bowmon, Ga.; Dr. W. H. Hailey, Hartwell, Ga., and Dr. A. O. Meredith, Hartwell, Ga.

The Emanuel County Medical Society reports the following officers for the year 1921:

President—Dr. Robert L. Sampler, Summitt, Ga.

Vice President—Dr. L. P. Youmans, Swainsboro, Ga.

Secretary-Treasurer—Dr. L. Ivey Lanier, Wesley, Ga.

Delegate—Dr. V. E. Franklin, Swainsboro, Ga.

Alternate—Dr. J. D. Bailey, Summertown, Ga.

Censors—Dr. D. D. Smith, Swainsboro, Ga.; Dr. J. H. Chandler, Swainsboro, Ga., and Dr. L. Ivey Lanier, Wesley, Ga.

The Ben Hill County Medical Society reports the following officers for the year 1921:

President—Dr. M. J. Luke, Fitzgerald, Ga.

Vice President—Dr. Frank Ward, Fitzgerald, Ga.

Secretary-Treasurer—Dr. W. P. Coffee, Fitzgerald, Ga.

The Mitchell County Medical Society reports the following officers for the year 1921:

President—Dr. J. L. Brown, Camilla, Ga.

Vice President—Dr. J. R. Clements, Pelham, Ga.

Secretary-Treasurer—Dr. Roy Hill, Pelham, Ga.

Delegate—Dr. J. M. Spence, Camilla, Ga.

Alternate—Dr. Roy Hill, Pelham, Ga.

Censors—Dr. A. S. Hargrove, Pelham, Ga.; Dr. C. A. Stevenson, Camilla, Ga., and Dr. A. Akridge.

We are glad to note a number of new members on this year's roster from Mitchell County, and wish Dr. Hill success in securing every eligible man in his county as a member of the society.

The Twiggs County Medical Society reports the following officers for the year 1921:

President—Dr. T. S. Jones, Jeffersonville, Ga.

Vice President—Dr. J. G. Slappy, Jeffersonville, Ga.

Secretary-Treasurer—Dr. J. A. Hembree, Danville, Ga.

Delegate—Dr. S. W. Ray, Jeffersonville, Ga.

Censors—Dr. H. A. Rogers and Dr. J. G. Slappy, Jeffersonville, Ga.

Dr. M. M. Head of Zebulon, Ga., president of the Pike County Medical Society, has sent in the preliminary report for his county society. However, up to the present writing we have no complete list of the officers.

Crisp County Medical Society reports the following officers for the year 1921:

President—Dr. J. A. Ward, Cordele, Ga.

Vice President—Dr. W. A. Miller, Arabi, Ga.

Secretary-Treasurer—Dr. O. G. McKenzie.

On Thursday afternoon, January 27th, the corner stone of the new Wesley Memorial Hospital, located on the campus of Emory University, Atlanta, was laid with appropriate and impressive ceremonies. The new Wesley Memorial will be, when completed, one of the best built and equipped hospitals in the entire country.

We are indebted to Dr. W. A. Walker of Cairo and to Dr. V. H. Bassett of Savannah for returning to us copies of the January Journal which were "mussed up" by the publishers. It is a pleasure to us to furnish new copies when such things as this occur, especially since it shows that The Journal is being read.

Dr. I. H. Goss of Athens, the efficient president of the Clarke County Medical Society, has called our attention to the fact that we changed his name to "Boss" in the January Journal. Dr. Goss states that he doesn't think

that he is a "Boss." However, in this we do not entirely agree with him, as we think he is the "Boss" of the Clarke County Society for this year, and knowing some of his many excellent qualities, we expect him to be the most efficient and capable "Boss" his society has had in many years. So here's hoping Dr. Goss as "Boss" will soon be able to report a 100% society for this year.

### BOOK REVIEWS.

(THE EYE, EAR, NOSE AND THROAT), edited by Casey A. Wood, C. M., M. D., D. C. L., Albert H. Andrews, M. D., and George E. Shambaugh, M. D. The Practical Medicine Series of 1920, Vol. III, 382 pp., Chicago, Year Book Publishers, 304 S. Dearborn St., price \$1.75.

A review of the world's current literature in these specialties for the year 1919. Of value to anyone not conversant with the recent American or foreign contributions to these subjects, but intended primarily for the general practitioner. One half of the book is devoted to the eye. Each original paper has been carefully condensed with editorial notes added in which the editor either concurs or disagrees with the views expressed by authors. Interesting articles appear on The Diagnosis of Trachoma, Quinine Amblyopia, Eye Symptoms in Infected Teeth and The Eye in Epidemic Lethargic Encephalitis.

The ear section has a splendid article on "The Relation of the Physician to Otology," in which the author pleads for earlier mastoid operations. Six authors give six different viewpoints on otitis media. There is also a splendid article on "Symptom Interpretation in Mastoiditis," which gives many valuable points.

The nose and throat section is short, but it contains many valuable extracts. Some of the subjects treated are as follows: Interpretation of Headache; Treatment of Nose Bleed; Douching the Nose in Children; Treatment of Hay Fever with Autogenous Vaccine and Pollen Extract; the Treatment of Vincent's Angina with Chromic Acid; Getting Rid of Diphtheria Carriers by Diphtheria Vaccine; Local Versus General Anesthesia in Tonsillectomy and The Indications for Tonsillectomy.

The book is very readable and the editorial notes give it the appearance of a round table discussion on the various subjects. The papers of over two hundred authors have been extracted, and about fifty per cent. of these papers are from foreign journals. The source of each article is given so that it is possible to refer to any original article if it is so desired. A table of contents, an alphabetical list of the subjects treated and an author's index make ready reference possible. The illustrations and the legends add considerably to the value of the book.

—M. T. Edgerton Jr.

Diseases of the Intestines and Lower Alimentary Tract, by Anthony Bassler, M. D., Professor of Gastroenterology, Fordham University Medical Col-

lege and New York Polyclinic Medical School and Hospital; Visiting Physician, New York Polyclinic Hospital; Visiting Gastroenterologist, Peoples Hospital; Consulting Gastroenterologist, Stuyvesant Polyclinic, Beth-David and Christs (N. J.) Hospitals; Fellow American College of Physicians and New York Academy of Medicine; Member of American Medical Association and Medical Societies of the State and County of New York, American Medical Editors' Association, American Roentgen Ray Association, New York Gastroenterology Club; Honorary Member Southern Gastroenterological Association; Author of the Text-Book, "Diseases of the Stomach and Upper Alimentary Tract, etc, etc."

This entertaining author comes again with a work worthily supplementing his previous effort. He admits that "considerable detachment" is offered in its presentation, but the book, nevertheless, possesses sufficient continuity of thought to be of practical value.

Chapters I to VI, inclusive, while adequately covering the subject matter, contain nothing materially different from other recognized text-books. Chapters VII and VIII on Chronic Intestinal Toxemia are quite comprehensive in their scope, and enter into the subject more thoroughly than has heretofore been attempted. Some of his conclusions, while, perhaps, controversial in their nature, are well argued, bearing the imprint of the author's sincere convictions.

The remaining chapters are both instructive and orthodox. Dr. Bassler has a real message for the profession, and his literary style is worth emulating by many of our present-day writers.

This book is published by F. A. Davis Company, of Philadelphia, and the price is \$7.00.

An Epitome of Hydrotherapy. Simon Baruch, M. D. W. B. Saunders Co., Philadelphia, Publishers.

In this pocket-size book of 200 pages the venerable author issues what he calls his last message to his colleagues.

It is difficult to confine oneself to consideration of his delectable book and to refrain from eulogy of the man. By his tireless enthusiasm throughout a long and distinguished career in New York this noted physician and teacher has done more to bring hydrotherapy into its own in the consciousness of the medical profession than anyone else in America. His dignity, sincerity, and devotion have given peculiar prestige to his contentions for a great and relatively neglected therapeutic method. Prof. Winternitz, who took hydrotherapy out of chaos and placed it upon a scientific basis, and Kellogg, who has made valuable contributions to it and carried it to the public in a big way, are the two to be mentioned with him.

To turn to the book, the principles of the use of water as a vehicle for thermic and mechanical stimuli is vividly and tersely set forth. In like fashion the rationale of the reactions to various hydrotherapeutic applications are explained, recalling forgotten physiology and causing one to marvel anew at the interplay between the respiratory mechanism, the vaso-motor system, the circulatory system and the heat regulating mechanism.

The technic of the diverse hydrotherapeutic measures, their indications and effects, are covered in a readable and impressive way. The section devoted to "procedures adapted to various diseases" is most practical. In these parts of the book and in that devoted to installment of hydriatic equipment are shown the great eagerness of the author to insure his reader against bungling and against poor results and disappointment. Some thirty-five illustrations clarify the descriptive matter.

"An Epitome of Hydrotherapy" will be greatly enjoyed by hydrotherapists. Studied by physicians and nurses, it will make for better results at the bedside and gain friends for hydrotherapy.

—W. W. Blackman.

### DEATHS.

Owens Johnson, attorney for the Medical Association of Georgia, born February 12, 1866. Studied law at the University of Virginia and the University of Georgia. Admitted to the bar at Macon, Ga. Died at his home in Atlanta January 6, 1921.

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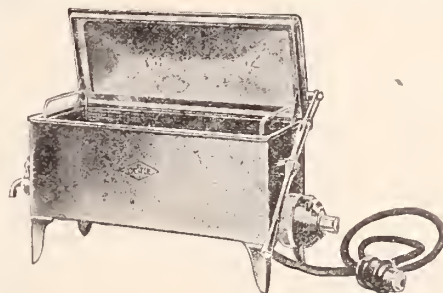
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Option 1. I herewith inclose my check for \$----- to be applied to fund being raised to erect a memorial to Dr. Robert Battey.

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Hyperthyroidism can be detected by the Goetsch test. This test is based on the fact that thyroid secretion sensitizes the sympathetic nerve endings to the action of Adrenalin. The technique consists of the subcutaneous injection of 0.5 cc Adrenalin 1:1000 and the subsequent observation of objective and subjective phenomena.

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The subjective symptoms

are sometimes striking. There are heart consciousness, apprehension, and marked tremor and pallor occasionally followed by flushing and sweating. The greatest diagnostic importance of the Goetsch test is in distinguishing cases of mild hyperthyroidism from those of incipient tuberculosis.

A satisfactory test for suprarenal function can be performed by injecting subcutaneously fifteen to twenty minims of Adrenalin 1:1000 and estimating the consequent variations in blood sugar. In cases of suprarenal irritability there is an increase in blood sugar which comes on in about thirty minutes and lasts for several hours. A transient glycosuria may likewise be noted.

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tive cases—cases of pancreatic insufficiency—there will be a prompt dilatation of the pupil.



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### ORIGINAL ARTICLES

#### ON THE ETIOLOGIC RELATION OF WORMS TO EPILEPSY.

E. BATES BLOCK,  
Atlanta, Ga.

Although the idea that the animal parasites of man are among the causes of epilepsy is generally known, there has not been any definite proof or disproof of this theory, and no adequate explanation of the method by which they provoke convulsions.

Some of the leading textbooks do not mention worms as a cause of epilepsy, while others mention them only with considerable reservation. To quote some of our leading writers, Oppenheim (1) only mentions worms as among the diseases to which epilepsy has been attributed, and even in discussing infantile eclampsia (2) he says the causal effect of intestinal worms, which is supported by earlier experience and by recent observations (Naab, Festa), has been disputed by many writers, such as D'Espine and Bong (3).

Gaupp (4) mentions worms as being "a more or less justifiably regarded . . . exciting cause," but regards it as a "secondary determining cause."

Osler (5) mentions worms under reflex causes among other subjects "given as causes."

Dana (6) rather significantly says more cases occur in the country than in the city, more in temperate climates. "The so-called reflex causes are . . . worms, etc."

Gordon (7) says "the relation of epilepsy to . . . intestinal worms is maintained by some observers, but not definitely proven."

Gowers (8) says "the chief peripheral irritation which can be regarded as a cause is that of intestinal worms."

Bing (9) says "the convulsions of children having intestinal parasites do not usually appear to be of epileptic character." Later he says: "Epilepsy is no neurosis" and "Hippocrates has rightly remarked that its etiology and pathology are in the brain."

Church & Peterson (10) say "reflex irritations due to . . . intestinal worms . . . are occasionally sufficient to provoke epileptic attacks and to cause their repetition."

Among Spratling's (11) cases there were only two cases attributed to worms, and Gowers (12) reported only six. The latter says that after the convulsions have lasted for some time the epilepsy is not cured by getting rid of the worms. It should be borne in mind that these authors wrote at a time when no systematic examination of the stools were made and the importance of close investigation of the subject was not so apparent as it is at the present time.

Two questions are considered especially in this paper, namely:

(1) Are we justified in regarding worms as one of the causes of epilepsy?

(2) If worms cause epilepsy, how do they do it?

(1) *a.* In a paper read before the Southern Medical Association in November, 1919 (15), I reported 200 unselected cases of epilepsy in my private records. No systematic examinations of the stools were made and the subject was not made a special object of research, but in 37 cases worms or the eggs of worms were found in the stools. Of these two were tænia, thirteen ascaris, seventeen hookworm, three oxyuris. In one case tænia saginata and hook-

worm were found together in repeated examinations. In three cases no record was made as to the kind of worms.

Since then I have compiled records from my private cases of epilepsy, taking them alphabetically, but only the cases in which there was a definite report made as to the presence or former presence or absence of worms or eggs in the stools, with the following results:

Out of 100 cases of epilepsy in which the stools were examined 56 were negative, 21 showed ascaris, 17 showed hookworm, 4 showed oxyuris, 1 tania (hymenolepis) nana, 1 tania saginata. This shows a total of 44 per cent. of the cases of epilepsy have worms. In 17 of the cases the worms or eggs were present on examination at the time of consultation, while in 27 cases they had been previously found in laboratory examinations or had been seen by the patients and accurately described. Most of the cases of ascaris belonged to this latter group.

b. The work done by the Rockefeller Sanitary Commission, under the direction of Dr. A. G. Fort (13), showed that out of a total of 35,133 examinations 11,418 people showed intestinal parasites (32.49 per cent.). As part of these were double infections, a total of 11,985 worms were found, which are classified in the table. The apparent discrepancy in figures is due to double infection.

c. Gage and Bass (14) examined 90 students in the Tulane University and found 42.4 per cent. of those from the country and 2.5 per cent. from the city infected with hookworm, or a total of 20.7 per cent. of young male adults. Of the mill population they found 12.6 per cent. have hookworm.

d. Out of the last 1,000 cases examined in the laboratory of the Georgia State Board of Health, under the direction of Dr. T. F. Abernethy, 250 showed worms (25 per cent.). Out of 1,695 stools examined (some of which were re-examinations of the same patient), 680 stools showed worms (40.12 per cent.) Naturally, most of the stools sent to the State Board of Health are sent because worms are suspected, and if we accept their experience of 25 per cent. we must readily admit that it is far in excess of the number infected in Georgia.

As to the kind of worms we find the following:

Out of 44 cases of worms with epilepsy in my practice there were:

Ascaris	21	47.17 per cent.
Necator Americanus	17	38.63 per cent.
Oxyuris	4	9.09 per cent.
Tania nana	1	2.27 per cent.
Tania saginata	1	2.27 per cent.

Rockefeller Commission—11,985 cases of worms:

Ascaris	1,240	10.34 per cent.
Necator Americanus	10,186	8.5 per cent.
Oxyuris	11	.09 per cent.
Tania nana	502	4.19 per cent.
Tania saginata	5	.04 per cent.
Strongyloides	29	.24 per cent.
Tania solium	2	.02 per cent.
Trichocephalus	10	.08 per cent.

Georgia State Board of Health—680 cases of worms:

Ascaris	22	2.23 per cent.
Necatur Americanus	596	87.66 per cent.
Oxyuris	0	.00 per cent.
Tania nana	51	7.50 per cent.
Tania saginata	3	.44 per cent.
Trichocephalus dispar	2	.29 per cent.

Double infection—

Hookworm and Tania nana	6	.88 per cent.
Stools, 1,695..Worms	680	40.12 per cent.

e. Certainly we cannot accept the results of a series of examinations in *suspected* cases as an index of the number of people in a community who are infected by worms, because the vast majority of people are well, worms are not suspected, and therefore no examination is made.

We then come to the following comparisons:

That 44 per cent. of my cases of epilepsy were *known* to have worms, while 20.7 per cent. of the Tulane University students had worms without any probability that many of them had epilepsy. Their observations that only 2.5 per cent. of city students had worms is very significant when considered in conjunction with my observations that the vast majority of my cases of epilepsy lived in the country or small towns, which is also supported by Dana's experience. Ammann (35) states there are twice as many in the country as in the cities in Switzerland.



We have then:

The Rockefeller Commission..	32	per cent.
Gage and Bass .....	20.7	per cent.
Georgia State Board of Health	25	per cent.
In epilepsy .....	44	per cent.

f. The question naturally arises: How many people have epilepsy?

Spratling found the following:

In Switzerland, 1 to 750 (Kolle).

In Russia, 1 to 2,000 (Kovalevsky).

In Russia, 1 to 1,000 (Shoutelwort).

In Scotland, 1 to 750 (Pelmoun).

In France, 1 to 1,100 (Vernet).

In the United States, 1 to 500 (Peterson).

The highest figures known to me are those given by Ammann (35), namely, 0.5 per cent. of the population of Switzerland are epileptics.

In my private cases I find 64 per 1,000 have epilepsy, or 6.4 per cent, which is, of course, high on account of the character of my practice being almost exclusively neurological. Nevertheless, even these high figures show that the chances of a fortuitous occurrence of a high percentage of worms with epilepsy is greatly out of proportion to the ordinary expectancy.

g. The question arises, also, if 44 per cent. of the cases of epilepsy have worms, then how many cases of worms have convulsions or epilepsy? To determine this point letters were sent to the physicians of Georgia who had sent stools to the State Board of Health, and I wish here to thank them for their co-operation in obtaining these statistics, and also Dr. T. F. Abercrombie and Dr. T. F. Sellers for allowing me to utilize their work. Out of 199 replies, 10 cases of worms had convulsions or epilepsy, and 189 cases of worms did not have epilepsy.

As to the kind of worms I present the following table:

	Without Epilepsy.	With Epilepsy.
Hookworm .....	172	8
Ascaris lumbricoides .....	6	..
Tænia nana .....	9	..
Tricocephalus .....	1	..
Oxyuris .....	1	..
Tænia nana and hookworm...	..	1
Tænia nana and ascaris .....	..	1
	189	10

Total, 199 cases.

It will therefore be noted that in two cases of worms associated with epilepsy there was double infection, and it is therefore difficult in these cases to say which may have caused the epilepsy.

It is obvious from this paragraph that only 5 per cent. of the cases of intestinal parasites had convulsions or epilepsy, and I shall later consider the question as to whether their mere presence in the intestinal canal is sufficient to produce epilepsy?

h. From these statistics we can say that worms are more frequent in association with epilepsy, than we find them in the examinations of people who have not, as far as we know, epilepsy, and I believe we are justified in accepting it as one of the causes of epilepsy.

(2) Having accepted worms as one of the causes of epilepsy, the next question is: How do they do it?

We will not take time to discuss Aristotle's "if the brain is willing," or Féré's "spasmodophilia," or Joffroy's "convulsive aptitude." These I think are generally conceded. I have elsewhere suggested the following possibilities:

i. The general ill health of the patient would, of course, render the nervous stability and equilibrium of the patient less.

j. The reflex irritation may act as a factor in a summation of stimuli.

k. Peiper has advanced the theory that intestinal parasites produce toxins.

l. The possibility of the actual invasion of the brain by the larvæ of the worms.

i. When worms are present the general health of the patient suffers, and various well-known symptoms occur. The majority of cases show, however, no evidence of ill health, and a comparatively small number show anæmia. Out of 23 of my 100 cases of epilepsy with worms in which the blood was examined 7 showed a reduction of hæmoglobin below 80, while only 4 showed a reduction of red blood corpuscles below 4,000,000.

The table is appended:

Hæmoglobin.	Red Blood Cells.	Leuco- cytes.	Kind of Worms.
70	4,592,000	5,200	Tænia nana.
80	4,816,000	7,600	Ascaris lumbricoides.
90	4,110,000	6,800	Hookworm.

78	4,730,000	6,600	Ascaris.
85	4,830,000	6,450	Ascaris.
75	3,890,000	5,200	Ascaris.
75	5,580,000	7,400	Hookworm.
75	4,640,000	8,400	Ascaris.
90	5,940,000	10,600	Hookworm.
80	3,970,000	3,800	Hookworm.
85	4,490,000	5,100	Ascaris.
85	4,988,000	6,200	Pin worm.
85	4,810,000	6,600	Hookworm.
90	4,200,000	4,000	Pin worm.
80	4,210,000	6,600	Hookworm.
85	4,148,000	7,000	Ascaris.
80	4,536,000	4,900	Ascaris.
85	4,200,000	5,600	Hookworm.
80	3,700,000	4,000	Ascaris.
60	3,700,000	8,200	Ascaris.
80	5,140,000	10,000	Hookworm.
80	4,530,000	6,150	Hookworm.
70	4,030,000	6,200	Ascaris.

We know, however, from experience that general anæmia is not a cause of epilepsy, while the theory of a local cerebral anæmia as an immediate cause of the onset of the convulsions has been well argued by Russell (16). General ill health from other causes has not been invoked to explain epilepsy, and there is little to support this theory, especially as the general health of epileptics is often good between spells.

j. The theory of a reflex irritation is somewhat vague, but we are all familiar with the fact that children sometimes have worms and convulsions and the latter disappear on getting rid of the worms, although, as a rule, this is, unfortunately, not true. We know that people who have a tendency to convulsions will often develop them from a slight additional cause, such as overeating, eating certain foods which are difficult to digest, constipation, etc. Only one out of eight of the cases of convulsions of infancy go on to the protracted condition of repeated attacks, which we term "epilepsy."

k. Peiper (17) regards the nervous symptoms from ascaris infection not as a reflex, but rather as due to a toxin contained in the helminthes, or metabolic in origin. "With regard to the toxic action of oxyuris, there is only the single record of Hartmann, who noticed the disappearance of epileptic fits and psychic disturbances in a girl, aged 13, after the removal of oxyuris." (Fantham.) A general discussion of the evidences of toxic action of cestodes and nematodes will be found in Fantham's (19) book (p. 644 et seq.).

The main contention of those who support this theory is that the poisons elaborated by the parasites produce anæmia.

(1) As to the possibility of the actual invasion of the brain by the larvæ of worms, this finds its greatest support in those cases in which cyst formation is prominent and leads to easy detection of the lesion on account of its size and often the great number, as in the case of Egerton Brown (20), in which they occurred in all parts of the brain, as well as other organs of the body. No signs of adult worms were found either during life or in the intestines at autopsy. A similar case was reported by Vigoroux et Hérisson-Laparu (21), in which, as in the former case, there were numerous epileptiform fits with numerous cysticerci in the brain. According to Fantham, in "cysticercus of the brain ten to nineteen years may elapse from the first appearance of cerebral symptoms until death" (p. 336-337). He quotes also the post mortem records of the Pathological Institute in Berlin before the year 1875, which showed 20 per cent. cysticerci affecting the brain, while of late years it has fallen to 1 per cent. (Orth, 22), and in the clinic of de Amicis at Naples, among seven cases of cysticerci of the skin they were found four times also in the brain (Sipari, 23). In 155 cases of cysticerci compiled by Stiles, the parasite in 117 was found in the brain. (Osler, p. 288.)

While the invasion of the whole body and brain by cysticercus cellulosæ (*T. solium*) is very common in Europe, this parasite is rarely found in America. A case is reported by Lloyd (28) in which the symptoms were those of brain tumor without epileptic attacks, but no tapeworm was found in the intestines.

In other cases the epilepsy is of a Jacksonian type, such as that reported by Fischer (32). In Paechell's (33) case the Jacksonian epilepsy was on one side of the body and later on the other side. There were about seventy cysts, but no tapeworm was found. An equally large number of cysts with Jacksonian epilepsy was found by Ziveri (34). In Sænger's (36) case of epilepsy there was no autopsy, but cysts were found under the skin.

Other cases with epileptiform attacks or convulsions were reported by Goldstein (37) and Biondi (38).



References to 44 articles on *cysticercus* in the brain are contained in the Index to the Surgeon General's Library.

The pathological changes in the brain found by Krause (40) seem quite sufficient to form a basis for the production of epileptic fits.

That other forms of *tænia* invade the brain is shown by the presence of *cysticercus acanthotrias* Weinland in the dura mater, which, however, Fantham regards as a form of *C. cellulosæ*. In discussing somatic *tæniasis*, Osler states that *cysticercus tæniæ saginata* has been found only two or three times in man (p. 287). According to Fantham (p. 341), *tænia saginata* gives rise frequently to *cysticerci* which invade the muscles of the ox, especially the pterygoid muscles, and has been reported in the human brain by Arndt (24) and Nabiers and Dubreith (25).

As to *tænia hymenolepis*, no mention is made by Fantham of their presence in the brain, but he mentions their causing epilepsy (p. 324), and in the first case reported (Bilharz, 1851) the boy died of "meningitis." On p. 649 he says: "How far the serious disturbances of the nervous system frequently to be observed in *hymenolepis nana* are to be considered as of purely reflex nature, or toxic, must remain an open question. The same applies to *Dipylidium caninum*."

As *tænia crassicolis* (cat) and *tænia serrata* (dog) habitually pass from the intestines into the portal vein and leave the liver with the circulation and go to various organs of the body, it would be easy to see how they may also pass to the brain, though I have no direct report on this fact.

As to the *tænia echinococcus*, we frequently saw hyatid cysts in the brain, often calcified, in the autopsy room in Prague. Osler (p. 291) states that out of 1,634 collected cases of hyatid cysts they occurred in the nervous system in 122, and he quotes Davies Thomas, of Australia, who tabulated 97 cases of *echinococcus* cyst, including some of the *cysticercus cellulosæ*, and found them most frequent in the cerebrum. Other cases have been reported by Foresti and Bonaba (26) and Eichhorst (27). In the cases of Maunsell (29) and Newton (30) the symptoms were those of brain tumor, with convulsions several times a day in the

former. The meninges of the spinal cord are sometimes affected as in Marwood's (31) case. All of which go to show the not infrequent invasion of the nervous system by *T. echinococcus*. References to 39 articles on *echinococcus* in the brain may be found in the Index to the Surgeon General's Library.

The mode of production of epilepsy by *ascaris lumbricoides* is a more difficult problem. There is considerable evidence that Peiper's assertion was right—that the *ascaris* produces a poison which has a profound effect upon the nervous system. Serious motor disturbances and frequently death were produced by Mes-sineo (39) by injecting extracts of the worms, and meningitic symptoms may be produced (Fantham, p. 649). As to the invasion of other organs, *ascarides*, *oxyuris* and *trichocephalus* have frequently been reported to penetrate the intestinal wall. I have in my collection a specimen of necrosis of the liver due to an *ascaris* ascending the bile ducts, and females have been reported (Fantham, p. 689) to lay eggs in the liver. Just what becomes of these eggs and what becomes of the *ascarides* which become free in the peritoneal cavity is not known to me. *Ascaris ova* have been found encapsulated in the peritoneum, and they have been known to produce nodular or abscess formations. In the case of *oxyuris* they form small nodules in the peritoneum, which shows their power of penetration of other tissues. Symptoms of meningitis may be produced by *trichocephalus dispar*, but whether this means an invasion of the meninges by the larvæ or merely a toxic action has not yet been determined. The case of Lutz (41), in which two *ascarides* were found in the pulmonary artery, was due to a gunshot wound of the abdomen. Of course, their occurrence in the frontal sinus, in the antrum of Highmore, the lachrymal duct, and other narrow, open passages, has a different explanation, but shows their migratory tendency. Whether their ova ever find their way to the brain and set up a focal irritation there remains an open question.

The case of St. Deak (44), in which the epilepsy and pyromania were cured by santonin, while not an isolated experience, is not the rule.

Fantham (p. 639) quotes Inouyès' report of



nineteen cases of paragonimiasis of the brain with general convulsions on eight occasions, unilateral convulsions on six occasions, convulsions with paralysis on the same side and hemiplegia five times each, and they quote several other authors who found the paragonimus in the brain with Jacksonian epilepsy. According to them, paragonimiasis of the brain appears to arise by embolism from a primary pulmonary lesion (lung flukes).

The well-known tendency of the hookworm (*ankylostoma duodenale* and *Necator Americanus*) to invade most of the organs of the body leaves little if any doubt that they also reach the brain, although I have seen no definite reports on their being found there. Loos (42) has shown experimentally that the larvæ enter the skin and are found in the veins, arteries and lymphatics, through which they pass to the heart and lungs, and there is no reason why they should not reach the brain. He says: "I cannot help thinking that in those cases, by no means rare, in which the anæmia in man will not yield, even after the adult worms have been completely or almost completely purged, the chief cause of this obstinacy might be found in strayed larvæ still present in the body." Stiles has demonstrated the hookworm in most of the organs of the body. Fantham suggests that certain observations would tend to show that ankylostome anæmia may be due to toxins excreted by the parasites.

We know also that other parasites invade the body tissues. Osler states that *Trichina* pass through the intestines into the venous system and by the blood stream into the muscles. Bunzl (43) found numerous nematodes in the brain of a common mole resembling the embryos of *Trichina spiralis*.

### Conclusion.

From the foregoing observations I feel that we are justified in stating that *there is reason to believe that epilepsy when produced by animal parasites may be due to the actual invasion of the brain by the larvæ*. The theory is at least less vague than the other theories, and is supported by the clinical fact that the epilepsy is rarely cured by freeing the intestinal tract of the parasites.

*The absence of worms or eggs in the stools*

*is not proof of the absence of parasites in other parts of the body.*

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## HYPERTROPHIC STENOSIS OF PYLORUS.\*

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During the past few months it has been my good fortune to have seen and operated upon three cases of hypertrophic stenosis of the pylorus in infants. Their ages were three, five and six weeks, respectively. There is little doubt in my mind that many of these cases in the past have been overlooked, and it is with this idea in view that I wish to present this brief discussion of what seems to me a timely article on this very interesting condition.

As to the etiology of this condition there is much difference of opinion. Whether the condition is congenital or comes on later as a result of the so-called "spasm theory," the pathology is well recognized. Usually the stenosis is of a most marked degree; the wall is much thickened, due to hypertrophy of muscular coat. However, the thickening of the circular muscle fibers may be slight, causing only a moderate degree of obstruction, and in this type they may have occasional attacks of obstructive vomiting, but finally recover, owing to

the fact that the gastric muscle is able to hypertrophy enough to force the food through the incompetent pylorus.

In the cases that have come under my observation they are babies of healthy parents, two females and one male, though it is said that the majority of these cases are first-born males. The vomiting begins in the first days of life, and the frequency and amount depends upon the character of the obstruction and may be a part or all of the ingested food. It is projectile in character and is not bile-stained. This vomiting is usually associated with restlessness on the part of the infant, suggesting the likelihood of abdominal pains. This type of vomiting should at once suggest to the physician the possibility of stenosis, and a careful inspection of the abdomen should be made. The gastric contracting muscle waves show themselves as rounded elevations forming at left costal arch and traversing the abdomen slowly to the right hypochondrium, where they disappear. The rapidity of movement will, of course, depend upon the force of the contracting waves, this depending upon the degree of obstruction, the amount of food in stomach and the thickness of subcutaneous fat layer.

I have been unable in any of these cases to palpate tumor prior to operation. This is due in part to the liver, which extends well down, and to the muscular rigidity caused by efforts at crying.

These symptoms of obstruction quickly lead to veritable starvation, and a once robust baby emaciates before one's eyes. This type is distinctively an operative one; however, there are border line cases which may be watched by the pediatrician, and as long as the stools indicate that considerable milk is passing through pylorus and the child does not emaciate too rapidly it is safe to defer operation, but as soon as it is seen that improvement is not possible along this line operation should be done at once.

Until the operation of Rammstedt, gastro-enterostomy offered the only satisfactory surgical cure. The operation of Rammstedt, however, occupies about one-half the time required for a gastro-enterostomy, with less operative work and has resulted in a much lower mortality rate. Downes reports thirty-five cases

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with eight deaths. Rammstedt's operation is based upon the fact that the hypertrophied circular muscle compresses and obliterates an otherwise normal mucosa and lumen. Therefore a simple incision cutting transversely the circular fibers and allowing sufficient separation of these fibers would restore the normal lumen. The operation is as follows: First the extremities and body of the child with the exception of the abdomen are wrapped in a blanket. The arms are bandaged to the sides. This conservation of the body heat is of utmost importance. The anaesthesia is begun only when the skin is prepared and sterile linen is on. A hypodermic injection of atropine 1/1200 of a grain is given to prevent a bronchorrhoea and ether is administered.

An incision two inches in length, a little to the right of the midline, gives the best exposure. The pyloric tumor, which is instantly recognized because of its size and firmness, is delivered through the incision by means of the thumb and index finger and is firmly grasped. The stomach itself is not delivered save for an inch or so of the pyloric end.

A longitudinal incision the full length of the tumor is now made. The latter is often of almost cartilaginous hardness. The incision is carried through the circular muscle down to the mucosa. As the tense fibers separate, a plane of cleavage between muscle and mucosa may be seen. The incision is now spread by means of a pair of sharp-nosed hemostats in order that the muscle be made to retract and to separate from the mucosa. As the edges of the muscle are stretched apart the mucosa herniates through as a redundant fold. In most cases bleeding is slight as the tumor is practically bloodless. The operation is now completed. The pylorus is now replaced into the abdomen and the latter closed.

In spreading the incision extreme care must be used to avoid tearing the mucosa. A large tear might necessitate a gastro-enterostomy, otherwise nothing need be done to cover the mucosa as there seems to be no danger of leakage. Moreover the tumor is so rigid that it is impossible to suture it. In some cases there is a tendency to hemorrhage after dividing fibers at pylorus. We must be certain that

hemostasis is complete before pylorus is dropped back into abdomen.

The post-operative care of these babies is most important and should be carried out by an expert pediatrician. The recovery from the hours, after which the child may be given an anaesthesia usually occurs in from one to two bottle or put to the breast.

Since dehydration has taken place due to obstruction, it is necessary to fill up the vessels with fluids and our custom is to push water by bowel and by hypodermoclysis.

The following cases I wish to report:

CASE HISTORY No. 5412. Referred by Drs. W. A. and F. X. Mulherin. Robert Bailie III. Admitted Dec. 22, 1919, 11 P. M. Gave history of vomiting all food and water, and having green mucus stools. Taken from breast and given course of calomel.

December 23, 1919—Breast milk, one ounce given every two hours; retained. Later during the day, put to breast and allowed to get more nourishment. Gastric wave observed; patient vomited.

December 24, 1919—Symptoms continued, and patient losing in weight. 5:45 P. M., operation started. 6:30 P. M., operation finished. Patient in shock. Atropine grain 1/1,200 (hypo) and oxygen given. Caff. Sod. Benz. grain one-fourth (hypo) given. 7:45 P. M., Salt Sol. four ounces, given Sub Cut. Murphy drip of Glucose, Sol. 10%, given, for 1 hour, every three hours and continued for four days.

December 25, 1919—Water one dram every two hours, alternating with breast milk, one dram every two hours; with occasional vomiting.

December 26, 1919—Patient put in upright position for flatulence, also taken up and put across nurse's shoulder. Water and nourishment increased to two drams every two hours, alternating.

December 27, 1919—Water and breast milk increased to four drams alternating.

December 28, 1919—Water and breast milk increased to six drams alternating.

December 29, 1919—Baby put to breast for five minutes every three hours. Weighed before and after, which showed gain of one ounce.





normal salt sol. four ounces given Sub Cut. 6:00 P. M., water one dram every two hours, alternating with breast milk, one dram every two hours. Murphy drip of Glucose Sol. 10° for one hour every three hours for four days. Intervals lengthened to 6-8 hours for two days. Then discontinued.

December 13, 1919—Breast milk two drams every two hours, alternating with water, two drams every two hours.

December 14, 1919—Water three drams, every two hours, alternating with breast milk, three drams every two hours.

December 15, 1919—Water four drams, every two hours, alternating with breast milk, four drams every two hours.

December 16, 1919—Amount increased to six drams every two hours (milk and water alternating).

December 17, 1919—Amount increased to ten drams.

December 18, 1919—To breast for 5 minutes which showed gain of one ounce.

December 19, 1919—To breast for 10 minutes every three hours.

December 20, 1919—To breast for 15 minutes every three hours.

December 21, 1919—To breast for 20 minutes every three hours.

Stitches removed, primary union.

Dismissed December 22, 1919.

CASE HISTORY No. 5622. Referred by Drs. W. A. and F. X. Mulherin.

Herman Daitz. Age three weeks. Weight seven and three-fourths pounds. Admitted April 1, 1920, 5:30 P. M. Gave history of vomiting all feedings, green mucus stools. Stomach washed with 1% Soda Sol. before nursing. Nursed every 3 hours. Benzyl Benzoate one drop given 5 minutes before nursing. Vomiting continued. Murphy drip of 10%

December 30, 1919—To breast for ten minutes every three hours.

December 31, 1919—To breast for fifteen minutes every three hours.

January 1, 1920—To breast for twenty minutes every three hours.

Stitches removed, primary union.

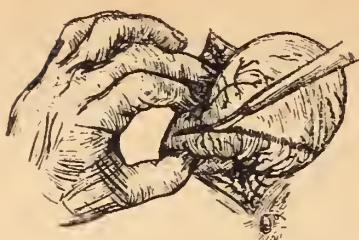
Dismissed January 1, 1920.

CASE HISTORY No. 35382. Referred by Drs. W. A. and F. X. Mulherin.

Dorothy Sheehan. Age, six weeks. Admitted December 11, 1919, 1 P. M. Gave history of vomiting immediately all feedings, and having green mucus stools.

4 P. M.—Allowed to nurse, and gastric wave observed. 7 P. M.—Stomach washed with Soda Sol. 1° before feedings, vomiting continued. Murphy drip of Glucose Sol. 10° for one hour, every three hours, preliminary to operation.

December 12, 1919—Stomach washed immediately preceding operation. 11:25 A. M., operation started. 11:50 A. M., operation finished. Condition of patient good. 1:30 P. M.



First Step of Operation



Second Step of Operation

Glucose Sol. for one hour every 3 hours. Green mucus stools. Stomach washed with Soda Sol. every A. M., returns undigested food.

April 9, 1920—3:30 P. M., operation begun. 5:00 P. M., operation finished. condition good. Atropine grain  $1/1,200$ , Caff. Sod. Benz. grain one-eighth, given Sub Cut. 6:30 P. M., normal Salt Sol. 3 drams given Sub Cut. Murphy drip of Glucose Sol. 10% for one hour every 3 hours. 7:00 P. M., water 2 drams every 2 hours, alternating with breast milk, 2 drams every two hours. 11:45 P. M., condition good. Temp.  $103^{\circ}$  F. Pulse 134. Resp. 40.

April 10, 1920—Breast milk 2 drams. 4:50 A. M., vomited small amount milk. 8:30 P. M., vomited large amount clear fluid. Breast milk 2 drams and water 2 drams, every 2 hours alternating. Occasional vomiting of milk and water. Expelled Murphy drip Sol. with green stool. 10:30 P. M., breast milk, 3 drams from nursing bottle. 12 M., water 3 drams, vomited.

April 11, 1920—1:30 A. M., water 2 drams. 3:00 A. M., water 2 drams, vomited with small curds. Murphy drip Sol. expelled with greenish yellow stool. Breast milk, half ounce, every two hours, water, half ounce, every two hours, alternating. 9:30 A. M., dark stool. 12 noon, slightly cyanotic, dark green stool. 1 P. M., breast milk, six drams every two hours, alternating with water, 3 drams. 4 P. M., breast milk, 7 drams, with water, one-half ounce, alternating, vomiting, dark green stools.

April 13, 1920—Nursing for 5 to 10 minutes every 3 hours, water one-half ounce. between feedings. Vomiting continued. Patient appeared weaker.

April 14, 1920—Vomiting continued. 12:10 P. M., operation started. 1:20 P. M., operation finished. Salt Sol. 4 ounces Sub Cut. every 8 hours. 3 P. M., breast milk, 2 drams every 2 hours, alternating with water, every 2 hours.

April 15, 1920—1 A. M., vomited milk and green fluid. 11:30 A. M., Murphy drip of Glucose Soy. 10% for one hour, every 3 hours. Expelled with green and yellow stain. 1 P. M., breast milk, 3 drams, with water, 3 drams every two hours. 5 P. M., breast milk one-half ounce, vomited. 7 P. M., breast milk. one-half ounce, vomited.

April 16, 1920—Breast milk one-half ounce, every two hours, with occasional vomiting. 4:30 P. M., small constipated dark stool, some flatus. Patient seems hungry. 8 P. M., breast milk, 6 drams.

April 17, 1920—5 A. M., medium yellowish green stool. Vomiting occasionally. Benzyl Benzoate drops, two and a half, given 5 minutes before feeding. Breast milk reduced to one-half ounce. 8 P. M., formula of breast milk, one-half ounce. with one and a half drams barley gruel, about 3 drams every 3 hours, vomited. Dark green stool.

April 18, 1920—Benzyl Benzoate discontinued. Other treatment same. Occasional vomiting, green stools.

April 19, 1920—Yellowish green stools. 1 P. M., stomach washed out with 10% Soda Sol., large amount of undigested food returned. Formula given per stomach tube, retained. Glucose Sol. 5%, 6 drams given Sub Cut. 5 P. M., formula given, vomited small amount. 8 P. M., Calomel, grain one-twentieth, every 15 minutes for four doses. vomiting continued.

April 20, 1920—Formula continued. Stomach washed and feeding per tube, retained; color and expression bad. 9 P. M., to breast, nursed well.

April 21, 1920—To breast for 10 minutes, every 3 hours. 11:30 A. M., small soft brownish yellow stool.

April 22, 1920—Nursing fairly well, nursing supplemented by giving breast milk from bottle, vomited small amount.



April 22, 1920—5 P. M., stomach washed. To breast, nursed well.

April 23, 1920—Slightly cyanotic, pulse weak; nursing well, vomiting more. Caff. Sod. Benz. grain one-eighth, given P. R. N.

April 24, 1920—Very restless, small stool. 11:20, Calomel and soda, grain one-tenth, every 15 minutes for four doses, followed by Castoria, one dram in 3 hours. Digitalin, grain  $1/2,000$ . 5% Glucose Sol. 6 ounces Sub Cut. every 8 hours.

April 25, 1920—To breast every 3 hours, nursed well, slightly cyanotic. Atropine, grain  $1/2,000$  (H.) P. R. N., vomiting occasionally.

April 26, 1920—S. S. Enema given, green and yellow stool, some mucus-Digitalin,  $1/2,000$  Atropine  $1/1,200$  every 4 hours. To breast every 3 hours, vomiting occasionally.

April 27, 1920—Calomel and Soda grain one-tenth, every 15 minutes for four doses, followed by Castoria, one dram. Sutures removed. Primary union.

April 28, 1920—To breast for 15 minutes, every 3 hours, nurses well, vomited twice in 24 hours.

April 29, 1920—Out on porch. Med. soft yellow stool, vomited once in 12 hours.

#### DISCUSSION DR. W. W. BATTEY'S PAPER

DR. W. A. MULHERIN: It is a pleasure to confirm, and commend, Dr. Battey's results with his three reported cases. To my knowledge there have been but four Rammstedt operations done in Augusta. All four of these were performed at the Children's Hospital, with 100 per cent recoveries. According to Holt, in selected cases, the mortality has been 10 to 15 per cent, and in unselected cases 28 per cent.

A good bit of confusion exists about the pathology of pyloric stenosis, as shown by the terms "pylorospasm," "hypertrophic pyloric stenosis." Personally, I think the term "pylorospasm" should be discarded. It is my belief that all cases are congenitally hypertrophic stenosis, and the element of spasm is of secondary consideration. The degree of stenosis determines whether it be classed a medical or a surgical case. The most interesting and important point in treatment of hypertrophic pyloric stenosis cases is, what cases are medical, which ones are surgical?

It is not a difficult thing to differentiate these cases if they are properly studied. The diagnosis must be first established. The clinical picture is that of an infant, usually in the first two months of life, but seldom in the first two weeks of life, vomiting without any apparent reason. Projectile vomiting, perceptible gastric peristaltic wave, unusual retention of food in stomach, constipation or absence of stools, and palpation of the pyloric tumor, in fully 50 per cent of the cases, gives a clinical picture that is unmistakable. If the pyloric narrowing is not very

great, the above picture, with the exception of absence of stools, may always be present.

However, if we weigh the patient every day, we will find that the baby is not losing weight, but may be remaining stationary, or getting enough food through the pylorus for absorption to show a slight gain in weight. Likewise, constipation may exist, but under mild laxative stools will show as fairly large and well digested. In such medical cases, daily stomach washing, with a soda solution, Sauers' thick gruel feeding, will probably sustain the patient well enough to get by without operative interference.

The immediate surgical cases are quite clear-cut; vomiting is persistent and follows the ingestion of all breast-milk, or artificial feeding. The baby shows a loss of two or three ounces daily; there are no stools, or starvation stools consisting of small, thin, chocolate colored substance; ordinary inspection reveals a decided lowering of vital force each day. Operation in such a case is imperative, and is life saving. Just here I would like to state that in many instances the pediatrician, or the general practitioner, does not study his case sufficiently well to give the surgeon a fair chance. In border-line cases, where it is difficult to class the patient as a medical or surgical one, I would strongly advise that medical treatment be first instituted. If in one week's or two week's time the case shows no improvement, if vomiting does not improve, and loss in weight persists, it has been my custom to call in the surgeon and ask for operation. I am firmly convinced that there is a useless loss of life in these cases, by physicians and pediatricians delaying operation too long.

As regards the advantage of the Rammstedt over gastro-enterostomy, I feel that the former is simpler, more quickly done, with less shock to the patient, the viscera less handled, and less vomiting occurs. There is one very important point that I think should be stressed. It is that post-operative treatment is just about as important as the operation. To secure the proper results it is necessary to realize that these little cases cannot be put immediately to the breast, after operation, for the reason that the stomach is either hypersensitive, or unable to hold but very little water or nourishment for several days. At the Children's Hospital in Augusta it is our routine to begin the Murphy drip twenty-four hours before operation, with 10 per cent glucose, one hour on and three hours off. After operation the Murphy drip is continued for some three to five days, and, if necessary, salt solution given subcutaneously within the first twenty-four hours.

As soon as the baby reacts from the operation it is given one teaspoonful of boiled water one hour, and the next hour one teaspoonful of breast-milk. The water and breast-milk are gradually increased until in forty-eight hours one ounce of breast-milk is alternated with one ounce of boiled water, every one and a half hours. This is gradually increased, as the child's stomach will permit, and at the end of one week we usually put the baby to the breast cautiously.

Another point of value in after-treatment is to prop the baby up in bed, at an angle of fully 45 degrees, which facilitates the eructation of gas, and also helps to prevent vomiting. It may be wise, in some instances, to put the baby over the nurse's shoulder, whenever necessary, to expel the gas.

DR. GEORGE M. NILES, Atlanta: I was hoping that Dr. Battey would not only cover the subject of infantile hypertrophic stenosis of the pylorus, but acquired hypertrophic stenosis later on. As he did not, I will confine my discussion to that part of it.

Dr. Mulherin spoke of whether the case was medical or surgical, and this would depend upon the



amount of stomach contents escaping into the duodenum and as to the amount of compensatory hypertrophy of the stomach muscles which will enable it to get through. Roentgen diagnosis is really a very helpful method of deciding on that.

I have at present three cases in mind which were very instructive and which I shall never forget. One little infant, five weeks of age, I saw in consultation with Dr. C. W. Roberts. This baby came of parents well along in years but healthy. The baby had projectile vomiting, was emaciated, and retained nothing whatever. The x-ray showed a stomach with exaggerated systolic contractions and practically nothing getting out into the duodenum. That case was operated on. I think gastroenterostomy was done and the child recovered without any trouble, and went right on and gained from the start. That was a plain and definite case.

I had no other case where the stenosis was not absolute. The child was about ten years of age, a little girl, that had had a certain amount of stenosis since infancy, but there was enough compensatory hypertrophy and enough propulsive movement of the stomach muscles to overcome it to a certain extent. Emptying the stomach was painful. The child was given laudanum and paregoric until the child was a dope fiend at that age. She came into my office, was given buttermilk and barium and so on after that she began to holler to such an extent that perhaps my neighbors thought I was committing bloody murder in the office at that time. Dr. Davis later on performed gastroenterostomy, and she left the hospital in due time. She required no more narcotics, and at the last account the girl was entirely relieved. That was a definite absolute case of hypertrophic pyloric stenosis and compensatory hypertrophy of the gastric muscles.

In a third case I was associated with Dr. Boynton. This little patient was two months of age. Dr. Boynton did not like to call in a surgeon. He introduced a duodenal tube with a little metal bulb and succeeded in getting it through the pylorus and attempted to feed the baby duodenally. For a few days it seemed as if the patient was going to get along all right. However, the outcome of that case was not favorable.

In the later cases of hypertrophic stenosis of the pylorus, those acquired from recurrence of erosions and scar tissue, they are easily diagnosed. Dr. Davis will remember how the little girl got along all right and quit her hollering and became a fine and healthy little girl.

DR. W. A. MULHERIN, Augusta: Regarding Dr. Niles' remarks concerning pain, we have found much pain in our cases. I do not think the diagnosis is hard to make. I think it is important to recognize and pay attention to vomiting in a baby. They will have projectile vomiting. The baby may have one or two attacks of vomiting the first two months of life. If you will bare the child's abdomen, stimulate the stomach walls, you will see the gastric peristaltic wave on the left side going over like a little lump, which is merely the stomach trying to push something through a narrow space. One lump follows another. It is an easy thing to diagnose. I do not think the x-ray is necessary for diagnostic purposes. You have the gastric wave; you have retention of food. If you give food every three or four hours, if you wash out the stomach, it will be found that very little of the food goes through. An important thing is, is the child getting enough nourishment to nourish itself? If it is not, you are losing valuable time. Do not delay.

Regarding postoperative treatment, I think that is very important. Dr. Battey brought out the point

that these children cannot retain nourishment after operation, and you may have to start just as soon afterward as possible to fill them full of water before and after operation; start as soon after they have reacted to the anesthetic as possible with two teaspoonfuls, one hour, and breast-milk the next two hours; in forty-eight hours an ounce of breast-milk, and next an ounce of water.

DR. W. W. BATTEY, JR., Augusta (closing the discussion): I will say in conclusion that this third case did not show on the fourth day the improvement that the other cases did, and Dr. Mulherin thought it better to go in a second time. I assumed perhaps I did not divide all the circular muscular fibers, and that there was some constriction in the pylorus. So on the fourth day I reoperated upon the baby and did a gastrotomy, and introduced through the pylorus a 24 French sound, showing the operation had accomplished what it was intended to do. The baby made a good recovery from the second operation, is now in the hospital and is improving very slowly, not as promptly as the other cases have.

In regard to sudden death in these cases, some authorities ascribe the sudden death to enlargement of the thymus gland. X-ray pictures have been made of those cases that died suddenly following operation, and in every instance the thymus gland has been found very much enlarged.

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### PYELITIS.\*

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Pyelitis is a time-honored subject for the pediatric pen, but we still so persistently permit this condition in childhood to catch us napping, that the writer has considered it worth while to bring the subject again before a medical gathering for mutual and fruitful discussion.

We all know that the offending organism is usually the colon bacillus. The mode of entrance is still a mooted question. The great preponderance of girls over boys has constituted a perplexing stumbling-block to the best observers who at present rather favor a hematogenous or lymphogenous route—a descending rather than an ascending infection. Smith favors the point of view that from vulva, furuncle, intestinal track, etc., the lymphatics are invaded, then the blood-stream. The bacteria pass through the glomeruli of the kidneys and during excretion cause a simple pyelitis, a pyelo-cystitis or still further a pyelo-nephritis, or lastly a pyo-nephrosis.

The symptomatology is quite important and

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at times rather varied. Any febrile disease in a girl baby initiated with a chill is far more likely to be a pyelitis than malaria. Headache, somnolence, stupor, meningismus all may enter into the picture more or less prominently. Not infrequently the intestinal track is disturbed as well. The fever is often of a markedly intermittent type with cold hands and feet—the algid type. The tongue is coated and anorexia troublesome. Occasionally the child seems but little disturbed by the fever which apparently is the one and only symptom. There is usually a marked leucytosis. There is always a diagnostic pyuria. In this connection it must be realized that often when the fever is highest, the urine is clearest. A diagnosis of pyelitis should never be dismissed on one negative urinalysis. It is equally true that the greatest pyuria does not always run hand in hand with the sickest child. Four or five urinalyses may be necessary before the diagnosis is finally clear. What is equally and rather confusingly true is that frequently after the acute attack, a marked pyuria may last for months with no symptom of fever or discomfort, and no apparent impairment of the child's health.

One should always remember that pyelitis is not infrequently a soft-footed enemy that takes possession of the field while our medical energy is bent upon curing some other disease-entity. I have found pyelitis associated with true malaria—a coincident rather than a complicating infection. It is quite commonly found in connection with enteric disease, and should always be suspected when the temperature persists beyond all reckoning, and cannot be accounted for by some further complication such as otitis media. It occurs with furunculosis, septic glands of the neck, etc. I have recently had six cases in connection with influenza and acute follicular tonsillitis.

A word in regard to diagnosis: For the well-informed medical man of today there is no excuse for an unrecognized pyelitis. I do not believe that I have ever failed to examine the urine microscopically one or more times in every child under my care who has been ill with a febrile disease of doubtful etiology over two days. Fever and pyuria almost clinch the diagnosis. A well-marked leucytosis and an

otherwise negative pathology such as blood plasmodia-free, negative lumbar puncture, negative Widal, etc., complete the diagnostic picture. Needless to state, one must convince himself beyond all shadow of doubt that the pus in the urine comes neither from a vaginitis nor from the rectum in enteric cases. Once again I wish to lay stress on the fact that, just as a disabled automobile may be disabled in more than one way—a cracked spark plug as well as a carbonized cylinder—so also the disabled child may not only have pyelitis but also some other disease produced by the same micro-organism that has produced the pyelitis.

The prognosis as to life is uniformly good. But few cases under proper and prompt therapy progress to a point where death takes place. Relapses and recurrences are common, however, and frequent observation for some time is important.

The duration may be a few days to many months, and the treatment is not always as easy as the diagnosis. The writer's method of treatment is about as follows: Sodium citrate and potassium acetate, sometimes sodium bicarbonate, five to ten grains every three hours, with quantities of water and fruit juices. If within a week or after the urine is well alkalized, there is little or no improvement either in the pyuria or the clinical picture, alkalis are given up and formin is used, two to five grains with acid sodium phosphate or benzoic acid, every three hours. After some seven to ten days one may again return to alkaline treatment for a brief period, but usually no such return is indicated. After four weeks or more vaccine therapy may be attempted, and sometimes with most brilliant results. I have only found vaccines effective, however, where the colon bacillus is the offending organism. Vaccine therapy may be used earlier if desired, for it does not interfere of course with either alkaline or formin therapy. The treatment otherwise is straightforward. Hydrotherapy for fever, rarely antipyretics (I almost said never antipyretics), a bland diet, well-opened bowels, abundant fresh air, and above all, the prompt removal of any possible primary focus to which the pyelitis is playing a secondary role.



## SIGNS AND SYMPTOMS OF EARLY LOBAR PNEUMONIA.

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Lobar pneumonia is one of the commonest diseases with which we have to deal, and one that collects a heavy toll of human life from year to year, yet it is one that frequently goes undiagnosed until its ravages have almost consumed the human soul, and in many instances it remains undiagnosed to the end. In hospital practice the diagnosis is much easier, for the reason that the disease is further advanced when first seen by the visiting physician on the hospital staff, and the laboratory facilities greatly aid in arriving at a correct conclusion. In general practice it is sometimes impossible to tell at the first or even the second visit, and occasionally the temperature has dropped by crisis on the fifth or sixth day of the disease by the time the physical signs have become sufficiently full-blown to give a correct and final diagnosis to the anxious members of the family. Here, as elsewhere, an accurate history is essential, and a knowledge of physical diagnosis and the power of proper interpretation of findings mark the skillful diagnostician from his less skillful brother.

It must be remembered that all pneumonias are not acute in their onset and do not display the well-known textbook picture of sudden chill, high fever, cough, and acute pain in the side. In any acute, infectious disease there may be high fever, convulsions, chills, vomiting, aching, and general distress; and, unfortunately, there is oftentimes associated a pharyngitis with a slight cough. Then it is that we must wait until the symptoms take a definite lead or upon the development of physical signs for our diagnosis. A thorough examination of every inch of the chest is necessary, for pneumonic processes are often manifested by small surface areas. In some cases, particularly in children, there may never be actual signs, and in these cases a careful history, together with the manifestations of fever, chills, expiratory grunt, herpes, flushed face and flaring nostrils will justify a

diagnosis of pneumonia. In doubtful cases a diagnosis can be correctly made by the use of the X-ray, for a shadow will be cast long before physical signs have appeared, and many a dilemma will be cleared up by X-ray or fluoroscopic examination. Early blood cultures should always be taken, for pneumonia is essentially a pneumococcus bacteremia and the severity of the disease more often depends upon the severity of the blood infection than upon the amount of lung tissue involved. A differential white blood count is always in order, and a leucocytosis of over 20,000 per cubic millimetre nearly always means pneumonia. Bronchopneumonia and influenza do not yield such high white blood counts. In pneumonia the higher the leucocytosis the greater the body resistance is supposed to be. An early and prompt examination of the urine should always be made, for lobar pneumonia is practically the only disease that gives such a noticeable and decided drop in the total output of chlorides. The Purdy centrifuge tube is a rapid and practical method of determining the total output of urinary chlorides, and as the disease usually occurs before the appearance of physical signs, as a general rule, a diagnosis may be made from this standpoint alone. Microscopical examination of the urine in children suffering from pyelitis, giving chills, fever and vomiting, may often clear up a chain of confusing symptoms. Rusty or prune-juice sputum is pathognomonic. In this form of hemorrhage the blood is intimately mixed with sputum, and is not free, bright red, and in large amounts, as is found in cases of pulmonary tuberculosis. It is those cases which are not clear-cut in their history and yield unsatisfactory results upon physical examination that we wish particularly to deal at the present time, and in diagnosing these cases we must differentiate them from a number of diseases, chief among which are influenza, pleurisy, pleurisy with effusion, meningitis, appendicitis, acute gall-bladder diseases, pulmonary tuberculosis, typhoid fever in its early stages, pericarditis with effusion, etc.

### Inspection.

The anxious aspect of the patient in well advanced cases suggests the diagnosis. Rapid respiration is the most suggestive sign, and a



count of thirty or above is always suspicious; however, it is well to remember that cardiac decompensation, diabetes, peritoneal inflammatory conditions, and pulmonary tuberculosis, will all give increased respiratory rate. There is present the expanding nostril, and perhaps the expiratory grunt. Herpes labialis may occur in this, as well as malaria and meningitis. The cheeks may be flushed, especially on the affected side. Dyspnoea and cyanosis occur later in the disease, and tympanites may be pronounced. The affected side will usually show deficient expansion, and in this case the opposite side will give increased expansion and exaggerated compensatory breathing. Any or all these conditions may be present in well-advanced cases, but may be entirely lacking in the early stages.

### Palpation.

In well-developed cases there is a marked increase in tactile fremitus and oftentimes a dry pleuritic friction rub may be detected in this way without the aid of a stethoscope. Voice sounds are transmitted to the hand a great deal more readily over the affected area. If by any chance the bronchi are occluded by secretions or exudate, vocal and tactile fremitus may be diminished or even absent. An increased sensation of warmth may be noted over the affected side. Pain from handling may be noted over the affected area.

### Percussion.

In the early stages corresponding to diminished breath sounds one may be unable to detect any change in percussion note. Also in the latter stages when the lung has again become aerated and resolution is well under way there may be but slight change in the percussion note, but auscultation will show a pathology still existing. However, fairly early in the disease there is found slight dullness over the affected area, increasing rapidly to a more marked dullness or flatness as the stage of hepatisation comes on, and sometimes a very few hours will produce very marked changes. Percussion over consolidated areas gives an increased sense of resistance or diminished elasticity with a dull note having a high pitch.

Percussion above consolidations or effusions gives a tympanic note (Skoda's resonance) with a louder note and a lower pitch. One may encounter a tympanic quality to the percussion note over an affected left lower lobe, due to the transmission from a distended colon or stomach. Dullness or flatness over an affected area continuing well beyond the stage for normal resolution probably means a post-pneumonic empyema. It is well to remember that such conditions as pericarditis with effusions, aortic aneurisms, etc., will give a change in the percussion note, but these can usually be ruled out by elimination.

### Auscultation.

In order to properly auscultate the chest the patient must lie evenly and both sides by comparison must have the same general position as to incline, elevation, position of head, limbs, etc., otherwise a mistake is very easily made. The very first change in auscultation is a diminished breath sound still of a vesicular quality. Rales are not usually present as in broncho-pneumonia. Occasionally the unwary may mistake this diminished breathing for the presence of fluid; but the acute onset and short duration of the disease will rule out this probability. The breath sounds change rapidly from pure vesicular to broncho-vesicular and later to well-marked tubular breathing with whispering pectoriloquy and increased voice sounds. During resolution are heard many and various rales (rales redeaux), and these may exist for some time without temperature and with practically no discomfort to the patient. If, however, resolution is not completed and breath sounds again become obscured or diminished and fever and chills reoccur, a post-pneumonic empyema is almost a certainty.

The reason for diminished breathing in the early stages advancing to plain tubular breathing later on, is explained by the laws of physics which show that sound is best transmitted through media of the same density; hence tubular breathing is heard when there is consolidated tissue extending from the large bronchi to the surface of the lung, and diminished breathing occurs when there is yet normal tissue interposed between these two points.

### **Influenza.**

The symptoms of this disease may be almost indistinguishable from those of early lobar pneumonia, and it is sometimes necessary to wait for physical signs to develop or for their failure to develop. In the ordinary type of la-grippe there are symptoms but no physical signs; in so-called Spanish influenza there is commonly a broncho-pneumonia of secondary origin and rarely ever is there a pneumonia of the lobar type. In these cases there is a leucopenia instead of a leucocytosis, and blood culture shows bacteria other than the pneumococcus.

### **Pleurisy.**

This usually begins with fever and the sharp stitch-like pain in the side is characteristic. There is heard the pleuritic friction on inspiration and probably on both inspiration and expiration. The patient will lie on the affected side to prevent pain by lung expansion. The patient does not give evidence of being so acutely ill, the temperature is not so high, and there is no expectoration and no delirium. The involved pleura may clear up, or the lung tissue underneath may become involved by contiguity and a pneumonia result.

### **Pleurisy With Effusion.**

There are no reliable physical signs to distinguish purulent from serous effusions. But we know that in children two-thirds of all effusions are purulent and are usually secondary to pneumonia—especially broncho-pneumonia—while in adults three-fourths of them are serous and are most usually tubercular in origin. In effusions there is an absence of rales, vocal and tactile fremitus, and of breath sounds. Occasionally tubular breathing is heard through fluid, due to compression of lung tissue, rendering it of about the same density as fluid. The heart is usually displaced—more by left-sided than by right-sided effusions, and the latter form of effusion usually causes a downward displacement of the liver. Dullness depends upon the thickness and the elasticity of the chest wall and the degree of collapse of the lung within, and there may even be flatness from apex to base. In the upright position the upper limit of the fluid will describe a curve, and Grocco's sign may be elicited in the

unaffected side. Localized areas of fluid are harder to diagnose, but the same principles apply as in larger amounts. The use of the X-ray, the fluoroscope, and the diagnostic needle are often necessary in clearing up doubtful cases.

### **Meningitis.**

Pneumonia being primarily a bacteremia with later localization in lung tissue, it frequently happens that a meningeal irritation or meningismus will be produced in the early stages and actual convulsions and other cerebral symptoms result. A careful history and examination, aided by lumbar puncture and an examination of the spinal fluid, will make the differential diagnosis. Pneumococcic meningitis sometimes occurs concomitant with a pneumonia, and is almost invariably fatal.

### **Appendicitis.**

Referred pain from a right lower, posterior, pneumonia to the iliac region of the same side is quite common, and many a case of lobar pneumonia has been operated upon for a supposedly inflamed appendix. No case should be operated upon until the lungs have been thoroughly gone over and the possibility of an early pneumonia excluded; and especially is this true in dealing with children. Appendicitis does not give the leucocytosis, the temperature, the respiratory rate, the expanding nostrils, and the expiratory grunt of lobar pneumonia, and in referred pain of an early pneumonia the typical rebound sign of appendicitis is absent. The X-ray should be used on all doubtful cases where operation is being considered.

### **Acute Gall Bladder Disease.**

A careful history is of the utmost importance. In many cases a tumor mass may be felt over the gall-bladder region and an examination of the urine will show bile pigments. A history of previous attacks and of digestive disturbances before the present illness will point toward gall-bladder disease.

### **Pulmonary Tuberculosis.**

The physical findings in consolidation from tuberculosis may very much resemble those of lobar pneumonia; but to the practiced ear there are many differences which come only by many examinations of acute and chronic chest conditions. The history of chronicity, the finding of tubercle bacilli in the sputum, the bilateral



findings in advanced cases all serve to establish the diagnosis of tuberculosis.

### **Typhoid Fever.**

This disease may be ushered in with fever, chills, vomiting, cough, and the finding of moist rales posteriorly. It may be impossible to make a correct diagnosis at the first visit, but the general aspect and history of the case, an early blood culture and differential leucocyte count, and the absence of physical signs will decide in favor of typhoid fever.

### **Pericarditis With Effusion, Aortic Aneurism, Subdiaphragmatic Abscess, Etc.**

These may occasionally give physical signs in the chest that might be ascribed to a pneumonic process, but the history and peculiarities of each individual case will usually serve to establish a differential diagnosis.

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## **HYPERTHYROIDISM.\***

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A diagnosis of hyperthyroidism has become, within the last few years, a not uncommon occurrence in the private practice and in the clinics of most internists. This increase in the number of such diagnoses is the result of an increase in our knowledge of this condition and the more wide-spread use of certain valuable tests, particularly the determination of the metabolic rate. The number of such cases, the advancement in our knowledge concerning the causes and recognition of hyperthyroidism, and particularly the change of opinion as to the proper management of the average case seem to warrant a short discussion of these phases of the subject of hyperthyroidism.

In the beginning of such a discussion, it is advisable to state just what is meant by the term hyperthyroidism. Briefly, it is a condition, sometimes referred to as exophthalmic goiter, Parry's, Grave's, or Basedow's disease,

caused by a hyper-secretion of the physiological thyroid hormone, which results in excessive catabolism of all body tissues.

In considering the etiology and symptomatology, we must keep in mind the physiology of the thyroid gland. Briefly, we may state that the thyroid secretion has to do with the regulation of metabolism, detoxication, sex gland development, circulation, intraglandular equilibrium, and with emotional equilibrium.

Now, the absorption of an excessive amount of the thyroid secretion is the direct cause of the symptoms which, grouped together, we call hyperthyroidism. But the causes of the increased secretion of the thyroid hormone are exceedingly numerous. However, a toxæmia, either chemical or bacterial in nature, is practically always the cause. Pilocarpine, phosphorus, turpentine, and silver nitrate are notable chemical poisons. Practically all febrile infections—tuberculosis, syphilis, typhoid, scarlet fever, measles, pneumonia, small-pox and what not—have been known to cause the hypersecretion. This is also true of the fetal waste matter and toxins which are thrown into the mother's blood during pregnancy. Infections of the tonsils, nasal sinuses, gall bladder, appendix, genito-urinary tract; carious teeth, so-called blind dental abscesses and pyorrhea alveolaris; and the absorption of poisons from the stomach, in cases of dropped stomach or pyloric stenosis, and from the intestines, in cases of intestinal stasis, are the starting point of most cases.

The toxins, from whatever source, stimulate the thyroid gland to increased activity—detoxication being one of the prominent physiological functions of this gland. The continued, increased secretion, which occurs in the chronic infections just mentioned, causes an increased metabolic rate, resulting in the formation of the usual catabolic poisons in excessive amounts. The catabolic poisons in turn serve as an additional stimulant to the thyroid gland; and so, a vicious circle becomes established.

Then there is another source of toxæmia which provokes excessive thyroid activity. This variety of toxæmia constitutes the psychoneural origin of hyperthyroidism. Briefly, we know that any emotional shock or stress, particularly when accompanied by trauma, produces an increased metabolism in the nerve

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cells. Fear, anger, deep grief and prolonged mental strain, by subjecting the nerve cells to violent stimulation, bring about disintegration of, or excessive catabolism in, the nerve cells, with the production of phosphoric acid, cholin and a particularly poisonous substance called neurin, to which the thyroid is extremely sensitive. In an attempt to detoxicate these neural poisons, the thyroid gland reacts powerfully, with the result that the thyroid hormone becomes a destroyer of the nerve cells, by causing excessive catabolism of the chromatin and fatty substances, particularly lecithin. In such a way a vicious circle becomes established. We see then, that the body, in hyperthyroidism, is surecharged with three distinct varieties of poisons: (1) the primary cause of the hypersecretion, (2) the excessive amount of thyroid hormone, and (3) the various toxins resulting from the excessive catabolism of all body tissues.

The manifestations of hyperthyroidism are exceedingly numerous. The severity and number of symptoms are directly proportional to the degree of hypersecretion. The circulatory system is greatly affected. Symptoms referable to the heart are palpitation, dyspnoea, anginoid pains, and a tachycardia which persists night and day. The heart is frequently dilated, which dilation often results in functional murmurs. Throbbing of the large blood vessels, particularly in the neck, is usually distressing. The pulse is fast and thready. A capillary pulse is often found. The blood pressure in early cases is sometimes elevated; but in advanced cases, it is always subnormal, in the absence of concurrent disease. Blood examination reveals a moderate degree of secondary anaemia; a pronounced leucopenia, with a relative increase in the small lymphocytes.

The nervous system is also markedly affected. Tremor is very prominent, which is of a fine, intention type. In severe cases the entire body sometimes trembles. The reflexes are increased.

Mentally, there are evidences of hysteria and neurasthenia. There are sometimes hallucinations. At times, the mental picture is one of hyperactivity of the intellectual centers. At other times, the patient is apathetic and depressed. Melancholia is frequent. Suicidal

and homicidal tendencies sometimes occur. Thyroid intoxication is not very infrequently the cause of a type of mental aberration similar to manic-depressive insanity.

The gastro-intestinal symptoms are mainly nausea and vomiting, abdominal distress and diarrhea. Examination of the gastric contents usually reveals the presence of gastro-succorrhea and hyperchlorhydria.

The sexual system is usually depressed, there being a decrease in desire and ability. In women, menstruation is usually very little and irregular.

The thyroid gland is usually more or less swollen, is usually soft, comparatively smooth and compressible, and frequently it is tender. A pulsative expansion is often felt or seen, and a systolic murmur is usually audible over the gland. When the intoxication is coming from an intrathoracic thyroid, or an accessory thyroid gland, the glandular symptoms are missing.

Among the signs which we notice about the eyes we may mention: (1) lagging of the upper lid when the eye follows a finger downward, (2) spasmodic contraction of the upper lid when the eye first attempts to look at a finger, (3) retraction of lids, resulting in enlarged palpebral fissures, (4) difficult eversion of upper lid, (5) infrequent winking, (6) impairment of power of convergence, (7) exophthalmos, and (8) paralysis of the ocular muscles. A rhythmic systolic murmur is often heard over the eyeball; and the eyes of most of these patients have a peculiar luster and a staring or frightened expression.

The skin is often flushed and  $1^{\circ}$  or  $2^{\circ}$  above normal intemperature. Excessive sweating is common.

The metabolic rate is increased anywhere from 10 per cent. to 100 per cent. above normal: this increase in the metabolic rate is directly proportional to the degree of thyrotoxicosis. There is an increased oxygen intake and carbon dioxide output. Loss of weight is usually gradual, and often very great. Muscular weakness is often most pitiable.

Several diagnostic tests are of much value. The metabolic rate, as determined by any one of several apparatuses, is always increased,

and the increased rate is directly proportional to the amount of thyroid intoxication.

The hypodermic injection of 8 minims of 1/1000 solution of adrenalin causes an increase of 10-50 in both pulse and blood pressure. This increase is followed by a fall and then by a secondary rise, returning to normal in about one and a half hours. The injection of the adrenalin causes also an exaggeration of the symptoms of hyperthyroidism. The lavender area which usually develops around the site of the injection lasts, in a case of hyperthyroidism, from one and a half to two and a quarter hours.

The instillation of 8 minims of 1:1000 adrenalin solution into the eye frequently causes, in a case of hyperthyroidism, a dilatation of the pupil.

It is worth while to remember that digitalis has little or no effect on the heart rate.

Cases of hyperthyroidism have a low glucose tolerance. One hundred grams of glucose fed to a normal person does not produce hyperglycemia; but this amount, even in border-line cases of hyperthyroidism, causes a marked hyperglycemia.

Several complement fixation tests have been described, but, being still in the experimental stage, they are not yet of value. The administration of thyroid extract is mentioned only to be condemned.

The first objects in the treatment are to discover the cause of the hypersecretion and to remove this cause. Find the chronic infections about the body and get rid of them. In the cases of psycho-neural origin, diet and rest are often curative.

Certain hygienic measures are valuable. Good nursing; pleasant, quiet surroundings; warm, fresh air; two sponge baths daily, with plain or salt water; and the application of an ice bag to the thyroid and cardiac regions, are all quite beneficial. Absolute mental and physical rest is a necessity in the more severe cases. Rest is beneficial to all. The administration of much water, especially the imported Vichy, is excellent.

Likewise, a suitable diet is most beneficial. Due to the excessive catabolism which occurs in these cases, a very nutritious diet is necessary to overcome this catabolic loss. This diet

should consist of sweet milk, buttermilk, cream, butter, cheese, eggs, plenty of bread, vegetables, soups, stewed fruits, cereals and a simple dessert, such as custard or rice pudding. All meats should be omitted, as Falta has found that a diet rich in proteins increases the thyroid secretion, and as Rudiger, on the other hand, has found that a diet of carbo-hydrates tends to decrease the secretion of the thyroid. Alcohol, tea, coffee and all stimulants are harmful.

Medical measures constitute a most important part of the treatment. These measures have for their object a reduction of the thyroid secretion and an upbuilding of the body tissues. The best agents for the inhibition of thyroid activity are the vaso-constrictors, of which the neutral hydrobromide of quinine, ergotin and the salicylates are probably the best. Pituitary extract, adrenalin, scopolomine and sparteine also constrict the vessels. Icthyol in one grain doses is recommended by Bram. The bromides and veronal are helpful in relieving the nervousness and insomnia. Likewise is sumbul sedative, especially when combined with hypnol, an excellent sedative. Arsenic, in addition to its tonic effect, depresses the functions of the thyroid.

Sodium or magnesium sulphate, or sodium phosphate, are excellent in maintaining intestinal function. The generous use of Vichy will, by its sodium carbonate, neutralize whatever phosphoric acid the blood may contain.

Another class of remedial agents is composed of those preparations which tend to restore to the nerve cells their functional constituents which have been more or less destroyed by the thyroid hormone. Lecithin in one drachm doses, three times daily; desiccated thymus gland, which contains phosphorus-laden nucleins, in five grain doses three times daily, and sweetbreads, are the most important.

In most cases, iron is of value. Several sera have been tried, some users finding them helpful, others finding them valueless.

Psycho-therapy is beneficial in all cases, and absolutely necessary in some. Often some error in the daily mental or physical life, some unknown worry, some hidden fear, or some secret sin will prove to be the root of the



evil. And it is only by gaining the complete confidence of the patient that we are able to find out the inner life of the mental sufferer who is our patient, and then correct any errors or mistakes therein. We must remember, too, that all these patients are sick in mind as well as in body; and we must treat them accordingly.

The X-ray is a most excellent agent for depressing the excessive secretion of the thyroid. X-ray therapy is painless and easy; it leaves no scar; it causes no fatalities; when given in conjunction with proper medical treatment, its results are excellent. The results of X-ray therapy are (1) a feeling of improvement; (2) the tremor diminishes, the tachycardia subsides, and there is a gain in weight. The question of dosage is most important and is to be determined by the skillful radiologist. Knox reminds us of several precautions to be taken in giving X-ray treatment, such as a careful estimation of dosage on each occasion, small doses given frequently, adequate filtration, the use of a penetrating ray, and the use of secondary filters of leather, loofah sponge, or any material which will absorb the soft rays. The thymus should be X-rayed each time, also.

Radium, when given properly and in sufficiently large quantities, will produce equally as good results as will the X-ray. Radium may succeed where X-rays fail, and vice-versa. The technique may be faultily applied in both instances. When properly employed, radium gives rise to no reaction and produces excellent therapeutic results. Neither the X-rays nor radium should produce a dermatitis.

Injections of boiling water into the thyroid gland have been done by Porter, resulting in some improvement. However, there have occurred three deaths from this procedure. Watson has used injections of quinine and urea hydrochloride with encouraging results.

The surgical treatment has been purposely considered last, as this form of therapy should, in the writer's opinion, be resorted to only after the other lines of treatment referred to have failed. Surgical treatment has been the form of therapy most often used, probably because the average physician considers the statistics in the wrong light; e. g., the mor-

tality from thyroid operations when done by Kocher and the Mayos is practically nothing, which means the deaths resulting from operation and not the cures. Judd and Pemberton of the Mayo Clinic have shown that eight years after operation not more than 45 per cent of cases are cured. It is evident, therefore, that the mortality rate of the average surgeon is 5 per cent or more, and that the percentage of cures will hardly reach 30. When the other forms of treatment have failed, surgery is in order. When pressure symptoms develop or malignant degeneration of the thyroid occurs, surgical intervention is necessary. It seems that the chief role of surgery in the future therapy of hyperthyroidism will be in removing causes of the hypersecretion.

Several case reports, greatly condensed, may be of interest, particularly in showing the value of basal metabolism studies. The results of such a plan of treatment as outlined are becoming so numerous that we need include only an illustrative case.

CASE 1. Mrs. D., age 27, "grass widow" and housekeeper, with no important past or family history, came for the relief of "nervousness and smothering due to a swelling in the neck." She had a clear-cut case of hyperthyroidism, with exophthalmos, lagging of the upper eyelids, tremor of tongue and fingers, pulse 90, temperature 99°, enlargement of the thyroid gland and insomnia. Several teeth were carious and pyorrhea alveolaris was pronounced. Basal metabolism determination showed an increased rate of 29%. Her rotten teeth were extracted, the pyorrhea treated, the thyroid gland was X-rayed several times by Dr. J. J. Clark, and she was given ergotin, quinine hydrobromide and veronal in capsule, and sumbul sedative. Two months later the pulse was 80, the temperature was normal, the tremor had ceased, and she had no trouble breathing. The basal metabolic rate then was 5% above normal.

CASE 2. Mrs. J., age 27, dressmaker, referred by Dr. C. W. Roberts. Complained of nervousness and difficulty in swallowing. She had a cough and had lost weight. She had been classed as a probable case of pulmonary tuberculosis some time previously. Family history



was unimportant. She had had one miscarriage, had lost both weight and strength, and had gradually become very easily excited. At times a constriction in her throat made swallowing difficult. She was slightly costive, and very restless at night. Examination showed a temperature of  $99.5^{\circ}$ , pulse 98, B. P. 100/75. Several posterior cervical glands were palpable. Two teeth needed filling or removal. There was a distinct tremor of the extended fingers. The thyroid was slightly palpable. A few crepitant rales were audible in the lower half of both lungs. Her metabolic rate was 33% above normal. The adrenalin test was distinctly positive. Wassermann was 4 plus positive. In this case the estimation of the metabolic rate and the performing of the adrenalin test made a positive diagnosis possible. It seems as if the hypersecretion in this case is due to the presence of syphilitic infection or to the several bad teeth. She is receiving anti-luetic and dental treatment, along with the medical and hygienic measures mentioned, with gradual improvement in her glandular or hormonal symptoms.

CASE 3. Mrs. X., age 44, housewife, was referred by Dr. E. C. Cartledge for a determination of her metabolic rate. She said she was nervous and she thought she had hyperthyroidism, because several physicians had told her she had a goiter and needed a thyroid operation. In fact, she was preparing to go to the Mayo Clinic for such an operation (which she surely would have returned without) when Dr. Cartledge, who did not believe she had any particular thyroid trouble, sent her over for a basal metabolism reading. The thyroid gland was just the least bit enlarged. Pulse, 78; temperature,  $98.6^{\circ}$ ; B. P., 118/78. The estimation of the metabolic rate showed an output of 37.5 calories per hour (the normal for her age being 38.5). The adrenalin test was negative. Therefore, we felt certain that she had no thyroid disease of any moment.

CASE 4. Mrs. L., age 40, consulted Dr. Samuel Stampá for backache. She had lost 20 or 25 pounds in the last six months, and she had exophthalmos, tremor of tongue and fingers, in addition to a gynecological lesion which probably accounted for her backache. Temperature,  $98.6^{\circ}$ ; pulse, 84; B. P., 120/80. Basal



Patient during a basal metabolism test, using the Jones' Metabolimeter. This test produces no discomfort, and, with this apparatus, may be done at the bedside.

metabolic rate was 18% above normal. Adrenalin test, positive. A diagnosis of hyperthyroidism, in addition to the gynecological condition, was therefore justified.

CASE 5. Mr. W., age 22, telegraph operator, consulted Dr. H. C. Hardegree for nervousness. His past history was negative, except that he was slowly losing weight and that he had a mild urethritis in 1918. He smokes ten cigarettes daily and does not drink alcoholics. At times he notices a weakness in his knees. Examination showed several decayed teeth, slightly inflamed tonsils and a thyroid gland which is slightly enlarged. Pulse, 86; temperature,  $98.6^{\circ}$ ; B. P. 111/70. Wassermann and various other laboratory examinations were all negative. The basal metabolic rate determination, for which Dr. Hardegree referred him, was 11% above normal, and the adrenalin test was distinctly positive. This patient is having his teeth put in order and is receiving the plan of treatment outlined in the section on therapy.

In conclusion, I urge you to make the diagnosis of hyperthyroidism before the disease has progressed to the terminal stage. At present I am making use of the estimation of the basal metabolism, the adrenalin tests and the glucose tolerance test, chiefly in the making of an

early diagnosis, and particularly in making a differential diagnosis between hyperthyroidism and early tuberculosis, neurasthenia, "disordered heart action" and allied disorders.

If, then, after making a diagnosis, and after removing the cause, or causes, you follow the plan of treatment which I have briefly outlined, you will be glad you did so.

Candler Bldg.

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### TUBAL PREGNANCY.\*

W. FRANK WELLS, M.D.,  
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For a long time, extra-uterine pregnancy was of interest principally from a pathological point of view, but since 1883, when Tate first operated on a case of ruptured tubal pregnancy, the subject has attained markedly particular interest, as is manifested by most of the literature of recent years. Prior to 1876, extra-uterine pregnancy was considered such a rare affection that Henig stated even directors of large obstetrical institutions made systematic researches, and Parry was able to collect but 500 cases from the entire literature. It was only with gradual developments of abdominal surgery that it became fully recognized. Then Schenck, in 1892, collected 610 cases which had been operated upon in the preceeding five years and recently many operations have been placed on record. Kustner having operated on 105 cases in a course of five years, while Noble encountered extra-uterine pregnancy in from three to four per cent of all his laparotomies. I will consider only in my paper tubal pregnancy, since this is by far the most common of the extra-uterine pregnancies.

#### Etiology.

Etiology may be divided into three groups.

First.—Conditions which may prevent mechanically the downward passing of the ovum. This may be pressure from swelling in the pelvis, or twisting of the tube by displaced uterus.

Second.—Results from the inflammatory diseases of the tubes, ovaries and pelvic peritoneum. The most common diseases causing such conditions are gonorrhea, puerperal infections.

Third.—Physical and developed abnormalities which favor decidual formation in the tubes. The general opinion is, that impregnation takes place somewhere in the Fallopian tube. After the ovum is impregnated in the tube, any condition that would prevent the

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impregnated ovum from passing back into the uterus, might set-up tubal pregnancy. The placenta formation in tubal pregnancy is very much the same as as uterine pregnancy, but the difference we get is that the former is dependent upon a different or scanty decidual reaction. First the placenta increases in size and it causes the walls of the tube to become much thinner both by pressure and degenerative changes. The placenta can usually be demonstrated at the time of its removal, as it is very easy to be separated from the tube.

### Symptoms.

Symptoms unfortunately belonging to the uninterrupted tubal pregnancy, are not characteristic. The patient and her physician are usually unaware of the existence of any abnormality, until the tube ruptures or abortion occurs. Usually, the patient gives a history of having missed one or two menses, or the menstruation has been very irregular. In my experience, the patient gives a history of being pregnant and then having an abortion in the usual manner. Upon examination, we find decidual membranes passing from the uterus, often accompanied with bloodclots, putrefactive odors and usual signs of abortion. On several occasions, I have curetted the uterus, thinking it was uterine abortion; later patient develops acute pain in the right or left iliac, as the case may be, and upon examination, we find palpable mass in the tube. In many cases, the first manifestation of tubal pregnancy is the on-set of acute pain in one or the other ovarian regions, which is soon followed by faintness, and the patient rapidly passing into a condition of collapse. This indicates either abortion or rupture.

In the former case, patient usually rallies promptly, whereas, after rupture has occurred, collapse follows, face becomes pallid, pulse very weak, temperature sub-normal and examination of the blood shows marked diminution of the red blood cells, and in the amount of hemoglobin. Death may occur in a few hours unless hemorrhage is checked by operative means.

### Diagnosis.

Unfortunately, symptoms to which uninterrupted tubal pregnancy may give rise, are

usually so slight that the woman does not consult a physician and as a result, the diagnosis is rarely made before rupture or abortion occurs. If, however, patient presenting usual signs and some of the objective symptoms of pregnancy be examined and for any reason a unilateral tubal tumor be found, diagnosis is fairly certain, especially if she has been sterile for a number of years and a long interval has elapsed since her last pregnancy. It is generally taught that the discharge of distinct casts from the uterus without evidence of the fetus, is the first characteristic sign of tubal pregnancy. If there is any doubt as to whether the particals that pass from the uterus are decidual membrane, a curettage should be done for diagnostic purposes. Of course, if the findings prove to be decidual membrane and the mass can be palpated in the tube, diagnosis is fairly certain. When a patient who is believed to be pregnant, first complains of pain in the lower part of the abdomen and suddenly becomes faint, deathly pale and sinks into a state of collapse, a diagnosis of tubal rupture should be made without hesitation. In my experience, several cases giving a history or recent abortion and then sudden pain which is very severe, occurring in one of the iliac regions, causes me to suspect tubal pregnancy. Upon examination, I find a palpable mass on one side or the other. The pain is much more acute than in appendicitis, salpingitis and other pelvic infections.

The blood examination in the infections shows a leucocytosis, while in tubal pregnancy, the white cells remain unchanged.

### Treatment.

Treatment, of course, is always surgical. As soon as unruptured tubal pregnancy is diagnosed, its immediate removal by laparotomy is urgently indicated since rupture may occur at any time and the patient die from hemorrhage before operative aid can be obtained. The danger to the patient depends largely as to whether the rupture is sudden or gradual, and whether or not the ovarian artery is ruptured. In tubal pregnancy, a rupture may occur gradually, a perfectly formed fetus remaining in the ruptured mass for one or two months. This condition existed in one of my patients, which I will later report.



**Case No. 1.**

MRS. "J." AGE 32.

*This patient was a multipara, she had one child seven years old.*

*History.*—This patient was unaware of being pregnant and was feeling perfectly well up until ten o'clock in the morning. She carried a cow out to graze and said cow jerked her across a ditch, and immediately a sudden pain developed in her right side. She had to be carried to the house. I saw her about one hour later, at which time, the pain had ceased. The pain lasted only about thirty minutes, but she was in a state of shock, and her pulse very weak. Upon examination, I found a mass in the region of the right tube, and a diagnosis of ruptured tubal pregnancy was made, and she was immediately sent to the hospital and operated upon. Upon opening the abdomen, I found very much blood in the abdominal cavity. The rupture was directly through the ovarian artery and the artery was still spurt- ing; this being four hours after the rupture, and the patient having lost so much blood, died the following day.

**Case No. 2.**

MRS. "P." AGE 35.

*One child twelve years old.*

*History.*—She gave a history of irregular menstruation for several years, and she had been passing bloodclots and some membrane with putrefactive odor for several weeks. Upon examining some of the membranes, I thought she had had uterine abortion. I curetted her and about a week later she began having pains in her right iliac. I examined her and found a mass in her right tube and made a diagnosis of tubal pregnancy unruptured. She was sent to the hospital and I operated upon her, and upon opening the abdomen, found the tube considerably enlarged, but was unruptured, and upon removing it, found the diagnosis to be correct.

**Case No. 3.**

MRS. "P." AGE 25.

*One child, one year old.*

*History.*—When I was called to see her, she was having considerable uterine hemorrhage

and upon examining her, found she was passing particles of decidua. I curetted her, and had the curetments examined with a microscope and found them to be decidua. Upon examination, I found a mass in the right iliac region; the patient was suffering intense pain, and I made a diagnosis of right tubal pregnancy and upon operation found the mass more to the right side than to the left, but the pregnancy was in the left tube; said tube being turned backwards under the uterus; the uterus turned to the left side causing the largest part of the mass to be in the right side; hence the mistake in diagnosis as to which tube pregnancy was in.

**Case No. 4.**

MRS. "H." AGE 32.

*One child, twelve years old.*

I was called to see this patient, in what she thought was an attack of appendicitis, as she had had an attack one month previous and the physician had at that time told her it was acute appendicitis. The pain at that time was very acute and she gave a typical history of a ruptured tube. Upon examination, I found a large mass in the right side, purulent discharge from the uterus. I had blood examination, and found 23,000 leucocytes. I made a diagnosis of acute salpingitis and advised an operation. Upon opening the abdomen, I found a large mass in the right side and many adhesions. Upon removing the mass, I found it indeed a pus tube; also ruptured tubal pregnancy, which must have been, at the time of the previous attack. I found in this infected mass, a fetus, at least three months' duration. I also had two other cases, so similar to the first three cases, that I will not report them in detail. By careful study, tubal pregnancy should be diagnosed in almost every case. Fortunately, I was able to diagnose five cases out of six, before the operation.

**PRURITUS OF ANAPHYLACTIC ORIGIN.**

The two cases reported by Milton B. Cohen, Hallibur, Iowa (Journal A. M. A., Feb. 8, 1921), are of interest because of the lack of demonstrable cause, except the food anaphylaxis, the inefficiency of local and general treatment and the complete cure following the elimination of the offending foods from the diet. Walker's method was followed in making the skin tests, using commercial proteins.

**THE UTILITY OF INFLUENZA-PNEUMONIA VACCINE IN PREGNANCY AND POST-OPERATIVE CONDITIONS.\***

MARION T. BENSON, M.D.,  
Gynecologist to Grady Hospital, Atlanta.

I am well aware that in this Maytime season, when pulmonary conditions are not much in evidence, that the subject of influenza and allied disorders is not so acutely in the mind of the profession. However, influenza has been with us for two epidemics, and will probably be with us again; and in this interim it is well that we mentally "take stock" and be prepared for another visitation of this scourge, should it come upon us.

Further, this paper is a plea for pregnant women, and for their sake it has prompted me to bring this vital subject to your attention. It may be out of place for a gynecologist and obstetrician to bring up a matter that is more in line with the internist, but what we have found good for those who are under our immediate care will be good for others. When we consider the high mortality in pregnant women and post-operative cases where the resistance is lowered, they fall an easy prey to the scourge of influenza, and, with this apology, I am taking up your time.

During the influenza epidemic of 1918-19, especially during the months of October, November, December and January, the medical profession seemed helpless in pregnant women and post-operative cases, where influenza appeared as a complication. The treatment was carried out principally on the expectant plan, and results were far from satisfactory. During this period, out of twenty-five pregnant women under treatment, I lost four, a depressingly large percentage.

In March, 1919, under the direction of the commanding officer of U. S. A. General Hospital No. 6, the influenza-pneumonia vaccine, type 4, was brought out. This vaccine was composed of streptococcus hemolyticus and pneumococcus, type 4, and was made available for those of the medical profession who sin-

cerely desired to make use of it. I promptly began utilizing it, and, to my gratification, did not lose another case out of fifty-five under treatment.

My ordinary routine with each pregnant woman was to begin with the vaccine immediately after she came under my observation, and give three injections, each one three days apart. This routine I have continued in the main, and with satisfaction.

During the present epidemic of 1920, I have had under observation and treatment forty-five pregnant women, and in these women there has not occurred a single death where they received the vaccine before they had become infected with influenza. Ten of these cases have had influenza in their homes, and, on account of the shortage of nurses, have found it necessary to render personal care to those who were sick, but all of the ten escaped the disease. Five others, who were constantly exposed and had to do nursing, developed mild cases, but passed through without troublesome complications. Three miscarried, but did not develop pneumonia nor any other complication, and made uneventful recoveries. Three cases who did not receive any influenza-pneumonia vaccine before they were infected developed pneumonia and died in an alarmingly short time.

I will report two of these unfortunate experiences:

Mrs. C., age 30, multipara, eight and a half months pregnant, nursed her husband and two children, who were ill with influenza, and soon contracted it herself. She did not call me until she had a well-marked case, and the third day after I was called I delivered a well-developed male child. She soon went into bronchial pneumonia, passed the crisis on the seventh day, but developed heart complications, and died on the ninth day.

Mrs. L., primipara, age 24, seven months pregnant, contracted influenza, and had a well-developed case of same when I was called to see her. (This was the first case of influenza I saw during the 1920 epidemic.) Mrs. L. was here on a visit, and expected to return to her home for confinement. At first she showed no unusual symptoms, except mild influenza attack, but went from bad to worse, as they usually do where they have not received the

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influenza-pneumonia vaccine. On the third day she developed pneumonia, and died within twenty-four hours.

These two cases illustrate the point I am endeavoring to make clear. In my opinion, had these two women received the vaccine previous to their influenza infection, it is doubtful if either would have died.

In my post-operative work I can report twenty cases who received the vaccine and not a single death occurred. Further, I can report over 500 cases of men, women and children who received the vaccine before becoming infected. Only ten of these developed influenza, with no deaths.

It is my custom to advise the families of all pregnant women and all post-operative cases to take vaccine as a prophylactic; therefore, we gave it to a large number of individuals of all ages, as I believe in the old adage, "An ounce of prevention is worth a pound of cure." As a prophylactic, it would appear to me that this method has made good.

It might be worth while to report another fatal case who did not receive the vaccine before becoming infected. This case, Mrs. C., multipara, age 34, was delivered on the last of December of her fifth child. After the onset of the influenza she developed acute nephritis, and then an acute infection of the parotid gland on the right side of her face. I operated upon her, making a free incision, and liberating a small amount of pus. This, however, failed to relieve, death following within twenty-four hours.

My comparative results, noting the cases who have had this vaccine and those who have not, have convinced me that the routine use of this vaccine, especially when the influenza infection is abroad, is worth while to the patient, and a source of great aid and comfort to the physician. In no instances have there been any unpleasant results following the administration of this vaccine, while practically all of my unsatisfactory results have taken place in those who have failed to receive it, either in time or not at all.

### Summary.

In 1918 and 1919, before the influenza-pneumonia vaccine, type 4, was brought out, four deaths out of twenty-five cases, after the vac-

cine was brought out in 1919 and 1920; 100 cases of pregnant women, 20 post-operative cases with no deaths, among those who received the influenza bacterin before becoming infected. Five of these pregnant cases had influenza with no deaths. Ten of these had influenza in their families without developing it themselves. Three of the 1919 and 1920 series, who did not receive the influenza bacterin before becoming infected, died.

I am fully convinced that this record will prove that influenza-pneumonia vaccine, type 4, as brought out by General Hospital No. 6, is worth while, and has a very useful field, and I feel justified in commending it to a favorable consideration of the profession at large, but I insist that this particular vaccine should be used, as it was my experience that the ordinary stock vaccine was a disappointment and failure, as I did not get results in this condition as I did with the influenza-pneumonia, type 4.

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### DISCUSSION OF THE PAPER OF DR. MARION T. BENSON.

DR. GARNETT W. QUILLIAN, Atlanta: I wish to commend Dr. Benson for his report and the results he has obtained. The experience he has with vaccines has coincided with the experience I have had in treating pregnant patients with influenza. If the vaccine is given sufficiently early they do not develop pneumonia. If the vaccine is not given early, they frequently develop pneumonia, and when they do, it is almost certain death to a pregnant patient.

One condition that was not mentioned by the essayist, but which I have noticed, is this: In some patients that did have influenza, after the babies were born the babies did not do well. One case died with asphyxia neonatorum. Whether that had a direct association with the influenza in the mother two months previously could not be definitely established; yet most of these babies from patients who had influenza for a while did not do well, but frequently you could resuscitate them and they would come around all right.

This is a very important subject, and the relief of mortality of motherhood is equally important in view of the fact that we have had two severe epidemics of influenza, and we do not know what the future has in store for us.

DR. LEE BENJAMIN CLARKE, Atlanta: As to the treatment of influenza in children in Atlanta last year and this year, this question has been of very serious import to the pediatrician. I would like to add briefly my own work and practical experience to what Dr. Benson has said. I think it is wise to bring out the point that there has been some question as to the advisability of giving young children this particular vaccine. I wish to disagree with the opinion of those who think it is inadvisable to give the vaccine because of the intense reaction. There is no reaction. I used the vaccine in the same hospital very exten-



sively both this year and not quite so much last year, and I did not have influenza in a single child who had prophylactic treatment. They have no reaction to it. There is no temperature. There is hardly a sore arm. It was given at intervals of three or four days, but without any reaction. This applies to children two or three years of age. The results have been so excellent with this vaccine I want to advise the continued use of influenza vaccine among children, and do not be afraid of reaction, because there is none.

DR. L. C. ALLEN, Hoschton: Ever since this vaccine has been offered to the profession my son, who works with me, and myself have used it very extensively. Our people in my section of the country seem to have faith in it, and a great many of them want it. Our experience with it has been very satisfactory. We have had a great deal of flu in our vicinity; we have had a great deal of pneumonia, but in not a single case where we have used this vaccine have we had a case of pneumonia. My experience also bears out what Dr. Clarke has said. We give it to children. We go into a family, we vaccinate every one of them, and there is no trouble about reaction among children.

DR. MARION T. BENSON, Atlanta (closing the discussion): My experience has been the same as that related by Dr. Quillian. If the vaccine is given for three or four or five or six months, according to the condition of the patient, I do not know how long the immunity lasts. I took it last winter myself two or three times. That point should be brought out.

### THE IMPORTANCE OF URETERAL STRICTURE IN ABDOMINAL DIAGNOSES.\*

GEORGE Y. MASSENBURG, M.D.,  
Macon.

The diagnosis of abdominal lesions, or lesions which appear to be abdominal, is often a most difficult problem. Especially is this true of the more chronic types.

We think we consider all possibilities and expend great effort in our attempt to arrive at a diagnosis, then frequently decide that an exploratory operation is indicated, though only a probable diagnosis is made.

How often has this procedure been done—an appendix removed that might have been somewhat kinked or slightly injected, or the uterus suspended for a slight displacement, the surgeon having been satisfied that all the other viscera were normal. Many such cases show no improvement.

The fact that I have profited by considering the possibility of urethral stricture in these

vague cases, is my reason for offering this paper for your consideration.

A few months ago a patient was sent to me for operation, with a diagnosis of appendicitis, and indeed it looked quite like a chronic or sub-acute appendix. She had had recurrent attacks of pain in her appendiceal region for a period of ten months, following the birth of her last child, the attacks lasting from a few hours to several days, with a constant soreness near McBurney's point. She had some nausea with the attacks, but no vomiting. In the more severe attacks, she occasionally had some pain in her right lumbar region, and occasionally some bladder irritability. She never passed any blood in her urine. Catheterized specimen of urine was negative.

X-ray examination showed a small shadow in the region of the lower end of the ureter. On cystoscopic examination the bladder appeared normal. An opaque catheter in the right ureter showed the X-ray shadow to be a small stone in the ureter. With a wax bulb on the catheter, a stricture was found in the ureter at about the region of the stone. The stricture was dilated with a 4 m. m. bulb. The patient had considerable pain for about 24 hours, and left the hospital in a few days. One month later patient gave report of feeling well since leaving hospital, was free from pain and symptoms, but had not passed the calculus. It was with difficulty that I got her to return for a second dilatation, as she felt so well she did not want anything more done. She was dilated a second time, April 10th last. In a letter of April 11th she writes she has been free from all symptoms, but had not passed the stone. She has not returned for further dilatation.

CASE NO. 2. This patient was a man aged 45, whom I had under observation for several months and whose symptoms pointed to sacro-illiac sprain, originating some years since. Examination and X-ray revealed a calculus in the lower end of the left ureter. He refused treatment and operation.

CASE No. 3. A young married woman, aged 31, who has suffered with pain in her right tubo-ovarian region since four months following the birth of her only child, seven years ago. She had twice been told she had

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to have an operation, by one surgeon, for removal of her right ovary; by another for merely female trouble. For about seven years she has suffered from a soreness in her right tubal region; for the past few years intermittent attacks of pain in this region and extending up the right side to the back, never extremely acute and no nausea. She has on one occasion had a slight hæmaturia. For two months before examination she had some bladder irritability, more or less constant, but never severe.

Catheterized specimen of urine showed a few red blood cells. Cystoscopic examination revealed a bladder of normal appearance. Both urethral orifices were functioning, though the ejaculation of urine from the right was with noticeably less force than from the left. Urine from the right side, other than a few red cells, was negative. I passed a 3 m. m. bulb up the right ureter, but did not get the hang of the stricture, though it seemed to pass with some difficulty. The patient had considerable pain in her right side for several days following and passed some blood. I was quite discouraged, for when I had finished I really could not say I had found anything definite. She has, however, since the examination been so markedly improved that I have begun to believe she had a markedly narrowing or stricture of the ureter in which I failed to notice the definite hang of a stricture.

Dr. G. L. Hunner, of Baltimore, has put urethral stricture on the map as a definite surgical entity to be reckoned with in abdominal diagnosis and as well in diagnosis of other conditions with extra abdominal symptoms. He gives as some of the important symptoms: Pain over the site of the stricture as almost constantly present; the most common location of the strictures is within 6 c. m. from the bladder, in the region of the broad ligament and just below the pelvic brim; intermittent attacks of pain in the kidney region, and irregular and intermittent bladder symptoms, though the latter is frequently absent; pain in some cases in the hip, groin, back and sacro-iliac joint—pain most always exaggerated during menstrual period. The urine may or may not show pus or red blood cells. Pyelitis may frequently be associated with stricture.

He reports one case of symptomless hæmaturia with urethral stricture which was relieved on dilatation of the stricture. Fever occurs whenever the stricture closes, whether or not there is an associated pyelitis, and sometimes may be quite high.

Gastro-Intestinal Symptoms—From very slight gastric disturbance to nausea and vomiting, gaseous distention and occasionally some rectal tenesmus.

In a series of over 150 cases, Hunner gives a list of diagnoses that were made on patients, many of whom had been previously operated upon without relief. They include:

Of the Urinary Tract—"Cystitis, pyelitis, pyelitis of pregnancy and puerperium, pyonephrosis, floating kidney, hydronephroses, stone in the ureter and chronic Bright's disease."

Of the Genital Tract—"Pelvic inflammatory disease and ovarian disease."

Gastro-Intestinal Tract—"Various functional disorders of the stomach and intestines, chronic peritonitis, gall stones and appendicitis."

Of Joint and Nerve Conditions—"Lumbosacral joint pains, neuralgia of sacral plexus, sciatica and mental disorders."

That operative relief for abdominal symptoms is not uncommonly disappointing, we should consider all possibilities in our effort at diagnosis, and the consideration of urethral stricture as a possibility.

#### DISCUSSION OF THE PAPER OF DR. GEORGE Y. MASSENBURG.

D. R. M. HARBIN, Rome: I consider that Dr. Massenburg has raised one of the most important questions in abdominal surgery, particularly in reference to the diagnosis of surgical conditions. There are more mistakes made in taking the appendix out, especially for urinary and kidney conditions, than in any other realm of surgery; at least, I have been led to believe that.

A recent report in the *Annals of Surgery* by a member of the Mayo staff gave the percentage of cases of ureteral and kidney surgery that had previously had their appendices taken out. I do not recall the exact percentage, but it was surprisingly high, and probably those useless operations were done by good men, one reason being chiefly that they did not take pains to make a diagnosis. There is hardly any excuse for failure to make a diagnosis in chronic conditions, but where we get caught is in the acute conditions. A patient is sent in with an acute abdomen; he is under the influence of morphin by the time he gets to the hospital. We recently had a case of that type. All the local physicians had pronounced it an acute appendix. The woman had a leukocyte count of 20,000. She had all the symptoms, among them vomiting. She was under the influence of opium. But on the train before arriving at the hospital she experi-



enced some sudden relief which excited suspicion. So the urine was examined and we found blood in it. But there was a caruncle in the urethra which would account for that. But there was a break in the symptoms which aroused suspicion, and our associate (Dr. Lewis) catheterized the ureters. He found obstruction a little below the middle of the right ureter so that the catheter could not be passed, but sufficient to be injected by the bromide solution, and then it was radiographed and showed very positively that there was quite a large hydronephrosis. In that case the woman had all the symptoms except a lack of rigidity, but having taken a quantity of morphin would eliminate that. It is these cases that will oftentimes get the best of us. I have made the mistake, and there is not a man who does much surgery that does not make a mistake, and it is a question of eliminating errors in diagnosis. It is the acute condition where we think we have no time to investigate that we get caught in these mistakes. In this case the woman had all the symptoms of appendicitis, increased leukocytosis, and every symptom of it. She had blood and pus in the urine and casts to a great extent. There were three of us associated in the case. I took the position that it was a case of pyelonephritis; the other two men took the position that it was a pus appendix. While we watched it for a day or two, in spite of its being an acute case, and the differential count kept going up until it was 90 per cent, then we knew there was some positive infection. At operation we found an abscess that had burrowed into the cul-de-sac. She had pyelonephritis, and some of these cases have obstruction of the ureter from the description. She had both, and the only data from which we could feel like going into the peritoneum was the increasing leukocyte count. It is very easy to make a mistake in such cases, and I say again, it is the acute case where we think we have no time to investigate in which we make such mistakes.

DR. W. L. COOKE, Columbus: I wish to emphasize one point Dr. Massenburg brought in a regard to pyelitis in these cases. I believe a large majority of the cases of pyelitis are due to some strictured condition of the ureter, either to a stone which has become lodged and is causing obstruction, or to stricture from some other condition, as proven by the fact that in my treatment of these cases formerly I used small ureteral catheters and injected antiseptic solutions into the pelvis of the kidney, such as argyrol and other solutions of the silver salts. For the last six months or so I have been using a large ureteral catheter, and the improvement in these cases has been much more rapid than it was when I was using a small catheter.

I had one case very similar to Dr. Harbin's first case he reported. I was called on to operate upon a case of acute appendicitis, but I could not quite subscribe to the diagnosis of appendicitis, although all the classical symptoms were there. I had the urine examined and found a few pus and blood cells. I then cystoscoped the woman, catheterized the right ureter with a large No. 7 catheter, and almost immediately she began to get relief from pain over the region of the appendix, not in the region of the kidney at all. About a pint of pus and urine and other debris was drained from the kidney. I went on further and decided it was not her appendix at all, but it was pyo-hydronephrosis. I demonstrated that fact with the phenolphthalein and found that the left kidney was doing its work all right, and then went ahead and removed the right kidney, which was a mere shell—a large pyo-hydronephrosis.

DR. GEORGE Y. MASSENBURG, Macon (closing the discussion): In the matter of the urine in these

cases of ureteral stricture, what you find oftentimes may not be at all important. Ureteral stricture occurs in a great many cases in which the catheterized specimen of the urine appears negative. It may not show any pus or blood. In a case that had a definite ureteral stricture I found on examination the urine was negative. In this second case I found some blood and was not certain what was the matter with the patient until she had shown such a remarkable improvement. The diagnosis certainly in all obscure cases in which ureteral stricture may be suspected ought to be looked into, and it is a simple matter, and does not require that the patient be in a hospital for examination. It may be done with great facility and definite data obtained. Frequently in passing the ureteral catheter or bulb up the ureter a reproduction of the same symptoms is frequently complained of, and the patient will say that is a pain I have, or that is the character of pain I am suffering from. Pyelitis or infection may not be present. If it is present, it is determined by the injection of the kidney pelvis and cultures from the kidney made. It is not difficult in the female. Certainly, we all have had some cases in which we have said "I don't know what is the matter with you." That patient is not given over for cystoscopic examination; we operate on her for what I think and several others think was appendicitis a couple of years ago, and yet she comes back complaining of the same symptoms and I strongly suspect stricture of the ureter.

## THE OBSTETRICIAN'S OBLIGATION.\*

GARNETT W. QUILLIAN, M.D.,

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Visiting Gynecologist to the Grady (City)  
Hospital and St. Joseph's Infirmary; Chief  
of Staff of Florence Crittenden  
Home.

Ever since Adam and Eve made love in the Garden of Eden, and Cain and Abel made their advent into an unsympathetic world, establishing beyond peradventure by their unrighteous conduct the doctrine of "the total depravity" of the human race, the study of obstetrics has merited, but has received from time to time the serious attention of far too few of the most scientific medical men.

As we compare the wonderful progress in all branches of modern medicine, surgery, internal and preventive medicine, with the conspicuous lack of obstetrical improvement we are astounded.

When in the twentieth century of the year of our Lord, in the most civilized nation on the globe, statistics show that, grouping all women of child-bearing age together, tuberculosis alone is more deadly than childbirth; that in the year 1915, according to statistics furnished at Wash-

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



ington, among women between the ages of 15 and 45 years, there were 29,200 deaths from tuberculosis, 10,134 from childbirth, of which 4,173 were from puerperal sepsis, and that, leaving out of consideration the ignorant and foreign element and tenement population, among whom tuberculosis is so deadly, the mortality from childbirth took the lead;

When the statistics for 1914 show that out of every 1,000 babies born into the world 172 died; that out of an annual birth rate of two and one-half millions 250,000, or one out of every eight, die before they reach their first year; or, to express it more graphically, a man seventy years old stands a better chance to celebrate his seventy-first birthday than a new-born babe has to reach its first birthday;

When statistics tell us that 30 per cent. of the cases of blindness admitted to our State institutions have lost forever the light of day through the lack of proper precautions at the time of birth—children for whom God has created the world are condemned to perpetual darkness through the negligence of the obstetrician!

When various nervous disorders, and even epilepsy in numbers of the infants who do survive, are caused annually through neglect of proper care of the child; and yet,

When, through the experience and practice of a small group of interested physicians in this subject, it is established beyond question that most of these maternal deaths are preventable and the infant mortality and multiplied deformities are to a large extent avoidable, is it not appropriate and opportune that our attention should be directed to the obstetrician's obligation to both the mother and the child?

Of course, in a brief discussion such as I am forced to give within a limited time, I could not discuss in detail questions of dress, diet, bowels, kidneys, exercise, regulation of coitus, bathing, care of breasts, preservation of figure, prevention of excessive loss of blood, methods of handling difficult presentations, etc., and yet most of these questions should be carefully discussed with the expectant mother by the conscientious physician.

Recalling that wonderful little poem by Henry VanDyke—

"Four things a man must learn to do  
If he would make his record true:  
Think without confusion, clearly;  
Love his fellow-man sincerely;  
Act with honest motive, purely;  
Trust in God and heaven securely."

May I not for the sake of emphasis enumerate just four obligations the obstetrician owes to the expectant mother and four he owes to the new-born babe?

Women have always accepted the mortality and morbidity of childbirth as a sacrifice which they must lay on the altar of motherhood, but since puerperal sepsis has claimed its toll of thousands—over 40 per cent. of maternal deaths being due to this cause—it is the *first* duty of every physician, whether he possesses much skill in the management of an obstetrical case or not, to at least give his patient the benefit of an aseptically and antiseptically *clean* delivery.

The well-equipped maternity hospital is the proper place for a clean delivery. The fact that there is as much reason for going to a good hospital to have a baby as there is for most surgical operations is being impressed upon the public mind more and more with each passing year.

DeLee says that without doubt the physician carries the greatest danger of infection to the confinement room. So, whether in the hospital or in the home, the physician's obligation is to employ the strictest care. He should be of clean personal habits; should not soil his clothes by contact with post-mortem tables, pus basins, contagious diseases, etc. *He must scrupulously avoid getting infective material on his hands!*

With a sterile gown, sterile hands, sterile gloves, sterile instruments and sterile towels, whether wet or dry, in the hospital or in the home, and with aseptic and antiseptic precautions—all of which cannot be too strongly emphasized, and yet which, in part at least, is all too frequently neglected—the expectant mother may be given the benefit of at least a *clean* delivery.

Secondly: While I do not advocate the routine employment of twilight sleep as taught, I am firmly convinced that this event in the life

of a woman should be robbed of its horrors; and, by the judicious employment of morphia, hyoscin, scopolamine, ether, chloroform or nitrous-oxide, according to the individual indication, a state of analgesia can be produced, unnecessary suffering relieved, and the agonizing pain frequently experienced at the completion of the second stage of labor entirely avoided. In many years I do not recall in any delivery in my own experience where the mother was conscious of excessive pain during delivery, and in most instances they did not even know when the baby was born. The following letter is but an illustration of the appreciation which is universal, and was received from one of my own patients in July, 1917:

Dr. Garnett W. Quillian,  
City.

My Dear Dr. Quillian—As per our telephone conversation, I am inclosing check for one-half of your statement, and will send the balance on the first of August.

I want to take this opportunity to thank you personally for your kindness, courtesy and absolute care in my case and that of my baby. I feel so grateful to you, above all, for taking away that *horror of childbirth* that ninety-nine out of every one hundred women have. It has always seemed wrong that the one supreme moment in every normal woman's life—that of motherhood—should be so shadowed by fear that agony crowds out happiness, due not only to herself but her new-born child as well.

Sometimes I feel that we pay our doctor bills and fail to pay our debt of gratitude that should go with them, but I do want you to know that I shall always think of you not only as my physician, but beyond that as a Christian gentleman, which radiates most gloriously in all you do, and finally as my personal friend.

Sincerely,

MRS. D. E. B.

While I feel unworthy of the reference as made, it is expressions like this that help to make the difficult places of our professional life easy and encourage us to continue in the practice of our art.

In the third place, I would emphasize the obligation of the obstetrician to anticipate and avoid the toxemias of pregnancy. This can be accomplished by eliminating probable foci of

infection, by properly regulating the diet, by exercising judicious care of the kidneys and bowels.

John E. Talbot, in the February, 1919, issue of Surgery, Gynecology and Obstetrics, and again in a recent issue of the Journal of the A. M. A., elaborated upon the teeth as an etiological factor in the toxemia of pregnancy. Every physician should insist on every patient, of whatever age or sex, keeping his or her teeth and mouth in first-class condition, and then, when conception takes place, the mouth need not be a source of danger.

Paul Titus, George Hoffman and M. H. Givens have, in the issue of March 20th of this year in the Journal of the A. M. A., an elucidating paper on the role of carbohydrates in the treatment of toxemias of early pregnancy.

Since 1915, when my first surgical paper on "The Dominating Influence of Acidosis in Surgery" was published in Annals of Surgery, I have followed a routine of periodically giving to my pregnant patients, as well as my operative cases, as a preliminary preparation for operation, in addition to a carbohydrate diet and large quantities of water, dextrose liberally with a limited quantity of citrate of soda, the alkali being employed cautiously for fear of drying up the milk glands, and in no case so treated has there developed a very serious toxemia.

More recently, to anticipate and avoid thyroid complications, I have given in alternate months syrup of the iodid of iron.

The keeping of accurate and complete records, in the fourth place, is a *duty* which the obstetrician owes to his patient, his profession and himself. A careful history should be taken; records of measurements and monthly or more frequent urinalyses should be kept, and by conscientiously keeping accurate and complete records the physician knows at all times his patient's condition, is less likely to overlook important considerations, and can, as already suggested, anticipate her needs and avoid complications.

#### Four Obligations to Child.

Without exhaustive elaboration, I mention *four* obligations which the accoucher owes to the new-born babe:

First: Proper care of the eyes. In most



States now there is a law which requires the physician to drop one or two drops of a 1 per cent. solution of nitrate of silver in each eye of the new-born, but would you believe that within the past eight years, in my own personal experience, I have seen professionally two blind babies, and both of these delivered by recognized, reputable and competent men, too, and made blind because their eyes were neglected at birth?

In every case a drop or two of a 1%  $\text{AgNO}_3$  solution should be dropped so as to reach the conjunctiva of each eye, and a milder silver preparation, silvol or argyrol, followed by boric acid solution, should be used daily for at least two weeks after birth; and if the eyes, with this treatment, show signs of beginning trouble, without delay the services of a competent specialist should be enlisted.

Secondly: I mention the proper care of the navel. DeLee more recently advocates cutting the cord short and placing a sterile dressing over it. For a long time my own method, which has given uniformly no trouble, has been to tie the cord from two and one-half to three inches from the umbilicus, paint the cut end with a 50% iodine solution, and wrap with a sterile bandage just as you would put on a finger dressing, allowing nothing to come in contact with the cut end of the cord except the sterile dressing, directing the ligated end toward the baby's chin on its abdomen under the abdominal binder. Each day the nurse drops from ten to fifteen drops of alcohol upon this dressing. The cord usually comes off in from three to seven days. The baby continues to wear the abdominal binder for from four to six months, there is never infection, and rarely is there even temporarily an umbilical hernia.

The third obligation which I wish to emphasize applies only to the male child: I am neither a Hebrew nor the son of a Hebrew, but I believe sincerely that it is the obligation of the obstetrician, except in rare and exceptional cases, to circumcise every male child in infancy. I am a young man, and yet in my limited experience I have seen nervousness and beginning chorea relieved and backward and dull children made cheerful, bright and alert by the performance of this simple operation, and in

one case epilepsy, which was caused by the failure of a recognized good physician to render this service, was completely relieved by a circumcision. Ordinarily, I will not argue with my patients, merely giving my best judgment, but in this issue, where there is parental objection or hesitation, I do not hesitate to persuade; otherwise, I feel that I would fail in my obligation to the new-born babe.

Finally, I would emphasize the obligation of the obstetrician to see to it that the child is not robbed of its proper food—its mother's milk. Statistics show that infant mortality in the artificially fed is 15 per cent. higher than in the breast fed; and the obstetrician, by exercising diplomacy and ingenuity in the care of the mother, both before and after delivery, seeing that she is given ample sleep, food, rest and outdoor exercise, and is kept optimistic, will be surprised at his uniform success in getting mothers to nurse their babies.

The use of Phytin capsules or nutro-lactis, together with proper food and fluids and the various measures suggested, will frequently swing the balance, resulting in a happy mother and a well baby. If the efforts to have the mother supply milk for her own child are fruitless, then frequently the obstetrician, who has usually several cases in his care simultaneously, may secure milk from one mother for the infant of another; but if finally it becomes impossible to give the baby mother's milk, hesitate not in enlisting the aid of the baby specialist to assist you in solving the problems of feeding and infancy.

No man should attempt to be an obstetrician and a pediatrician at the same time. If for any reason not readily understood the new-born babe does not do well, it is the obstetrician's obligation to choose a specialist in whom he has confidence, and, for the purpose of feeding or treatment, surrender the care of the child to the man better qualified through specialization to assume this responsibility, while he continues to serve the mother.

As a summary, at my request a gifted graduate of the training school of St. Joseph's Infirmary, Miss Cleo Cline, has written for this paper a serious parody on the expression of Henry VanDyke which I have quoted:



Four things an obstetrician must do  
 If he would make his record true:  
 First, must the delivery field, a 100% asepsis  
 yield.

Second, he should bear in mind to relieve pain  
 helps mankind;

So he should use a medicinal measure,  
 To relieve the pain that brings the treasure.

Third, the toxins must avoided be  
 To reach this goal: easier pregnancy;  
 Keep, fourth, a record of all things done,  
 Normal and abnormal, merged into one.

Then for the infant he must strive  
 Four things to do, so it will thrive:  
 For the eyes to employ A g N O<sub>3</sub>,  
 And merit grateful praise throughout eternity.  
 Next for the navel I'd suggest that he would  
 do his very best;

And if the child it is a male, then circumcise,  
 and without fail;

But the best of all this good advice I'll give  
 you now, and not think twice:

On mother's milk be sure to feed, then for the  
 doctor there'll be no need."

GARNETT W. QUILLIAN.

### NEWER ASPECTS OF SOME NUTRITIONAL DISORDERS.

Alfred F. Hess, New York (Journal A. M. A., March 12, 1921) reviews current views on vitamins and their relation to nutritional disorders, especially scurvy and rickets. Speaking of the use of cod liver oil in the treatment of rickets, he says: "It is recognized as a drug which benefits nutrition, but the fact that it has unequaled value in the prevention and cure of rickets is hardly realized." It is possible to rid any locality of rickets by means of the use of cod liver oil. There are approximately 125,000 children in New York City between the ages of 3 and 15 months, the period of the greatest susceptibility to rickets. If we estimate generously that the families of one-third to one-quarter of these children are unable to purchase cod liver oil, and if we agree that the development of rickets may be prevented by giving a teaspoonful three times a day, then, at the present cost, rickets could be practically abolished in this city by the expend-

iture of about \$150,000 a year. This is merely one of many instances in which the community does not get the full benefit of medical knowledge. Studies of the deficiency diseases have served to illustrate in a most convincing manner the intimate relationship of nutrition to infection, and have led to attributing increased significance to the former. Indeed, the chief clinical importance of disorders of nutrition seems to be associated with the fact that they bring about an abnormal condition of the tissues which renders them more susceptible to the invasion of bacteria or their products. Veterinarians and farmers are well aware that faulty nutrition leads to fatal infections. This "nutritional-infectious" aspect has been convincingly illustrated on a large scale among the peoples of the Central Empires, who during the many years of the war suffered from various forms of malnutrition. The general impairment of health was most strikingly manifested both in adults and in children by the great spread of tuberculosis and its increased mortality.

### GALLBLADDER DISEASE.

Donald S. Adams, Worcester, Mass. (Journal A. M. A., March 12, 1921), analyzes the results of operations on the gallbladder. Of 135 patients on whom a cholecystostomy was performed, 71.8 per cent. are well, 18.4 per cent. are improved and 9.8 per cent. remain unimproved. Of 10 cases of cholecystectomy, 82.8 per cent. of the patients are well, 10 per cent. are improved and 7.2 per cent. remain unimproved.

### REMOVAL OF GALLBLADDER WITHOUT DRAINAGE.

A. Murat Willis, Richmond, Va. (Journal A. M. A., March 12, 1921), emphasizes again that the omission of drainage after the majority of the operations of cholecystectomy is a procedure that is perfectly safe, and that the results obtained by such omission are distinctly superior to those following the older method of packing or draining with gauze.

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**EDITORIAL DEPARTMENT****ANNUAL MEETING OF THE ASSOCIATION.**

The seventy-second annual meeting of the Medical Association of Georgia will be held in Rome, Ga., May 4th, 5th and 6th. During its seventy-two years of existence the Association has had many memorable gatherings of medi-

cal men, and this promises to be one of the most interesting of them all. The mere fact that it has weathered the storms for such a period of time is ample evidence of the character of the men who have controlled its destinies. It is now and has always been devoted to the interest and welfare of both the physicians and the people of Georgia. It is a "forward-looking" body of men. It is now in a position to be of more service to the people than ever before. It is the privilege and duty of each and every member to attend the meetings of the Association and participate in its activities. Don't fail to attend the meetings and then criticize the work of those who do attend.

The barbecue at the Coosa Country Club and the unveiling of the Battey Monument will occupy the second afternoon of the session. Dr. Howard A. Kelly of Baltimore, a staunch admirer of Dr. Battey's will deliver the principal address at the unveiling exercises. In addition to this talks will be made by Dr. Geo. R. West of Chattanooga and Dr. Geo. B. Glover of Monticello, Fla. The President of the Medical Association of Georgia, Dr. E. T. Coleman, of Graymont, will preside at the exercises.

**PAPERS REQUESTED FOR ANNUAL MEETING.**

The Committee on Scientific Work invites the members of the Association to send in titles of papers they desire to read at the Rome meeting as soon as possible. It requires considerable time to prepare the program in a manner to suit the occasion, and therefore a knowledge of the subjects to be discussed is very important information for the committee's guide. The committee is especially anxious to receive titles from members outside the borders of the larger cities, so that the program will present contributions from many sections of the State. The committee is earnestly working to make the scientific sessions as attractive and instructive as possible. The attention of the members is particularly called to the provision of the constitution and by-laws which requires that the program be prepared and issued at least thirty days before the annual session.

**RESOLUTIONS ADOPTED BY ELBERT COUNTY SOCIETY.**

Pursuant to an order issued by the president of the Elbert County Medical Society, after having been discussed, voted on, and authorized by the members assembled in body on the 24th day of December, 1920, the following resolutions, condemning chiropractic and kindred cults that do not fall in the same category as does the legalized practice of medicine and surgery as authorized by the laws of the State of Georgia, are hereby submitted:

Whereas, in spite of the progress that is being made from year to year in bringing Georgia from that group of States where the percentage of illiteracy ranks highest, there still persists, even among the educated and cultured classes, a degree of ignorance and superstition that is appalling:

That it was partly for the protection of this class of individuals, and the numerous illiterates that exist in the State, that an act was passed by the law-makers of Georgia, regulating the practice of medicine and surgery, and that either the law is not being enforced or it is inefficient in the prevention of the practice of medicine and surgery by unqualified persons.

First—Therefore be it Resolved, That the influence of this society be used in every possible way to assist in the enforcement of the old and in the passage of new laws regulating the practice of medicine and surgery.

Second—That the representatives of this county in the State Senate and Legislature be seen by a committee selected from the members of this society, by the president, with the view of having more stringent laws enacted, and that the above-mentioned representatives be furnished a copy of these resolutions.

Third—That a copy of these resolutions be furnished the Journal for publication, and that each county medical society be urged to adopt similar resolutions.

Fourth—That a copy of these resolutions appear in the minutes of this organization as a permanent record.

J. E. JOHNSON, M.D., Chairman  
D. N. TOMPSON, M.D.  
B. B. MATTOX, M.D.

**REPORT OF COMMITTEE ON ARRANGEMENTS FOR ANNUAL MEETING,  
MAY 4th-6th.**

Place of Meeting—City Auditorium, Rome, Ga.

Hotels—Headquarters at General DeForrest, American plan, capacity 100; rates, \$4 and \$4.50; \$5.50 with private bath. Armstrong Hotel, European plan, capacity 100; rates, \$1.25 and \$2 with private bath. Third Avenue Hotel, European plan, capacity 40; rates, \$1.25 and \$1.75; \$2.50 with private bath.

Cafes—Hotel General DeForrest, table d'hôte, meals 75 cents; Armstrong Hotel Cafe; Brown Betty Tea Room, Third Avenue Hotel; Jervis-Davidson Tea Garden, 340 South Broad street, city; Busy Bee Cafe, 222 Broad street, city.

Opening prayer by Rev. E. R. Leyburn, D.D.

Welcome address by Hon. E. E. Lindsey, chairman City Commission.

Welcome address by Dr. H. A. Turner, president Floyd County Medical Society.

Thursday, May 5—Unveiling of Battey Monument.

Barbecued luncheon at Coosa Country Club by the Floyd County Medical Society. (Tickets furnished by registry clerk.)

An elaborated program for entertainment of the visiting ladies is being prepared by the ladies' committee on entertainment.

Urge that hotel reservations be made at once.

R. M. HARBIN, Chairman.

J. N. CHENEY.

J. P. BALLENGER.

The Ninth District Medical Society will meet at Gainesville, Ga., March 16, 1921. Officers: President—Dr. D. C. Kelly, Lawrenceville, Ga.

Vice-President—Dr. M. B. Allen, Hoschton, Ga.

Secretary and Treasurer—Dr. A. D. White, Gainesville, Ga.

**Program.**

Call to order, 11 A. M.

Invocation—Rev. E. F. Campbell.



Reading minutes of previous session.

Report of treasurer.

Papers:

"My Experience With Opium"—Dr. E. M. McDonald, Jefferson.

Subject To Be Announced—Dr. Edson W. Glidden, Alto.

"Bronchial Asthma"—Dr. M. B. Allen, Hoschton.

"Treatment of Arthritis"—Dr. Theodore Toepel, Atlanta.

"The Use and Abuse of the Wassermann Reaction"—Dr. Allen H. Bunce, Atlanta.

"Etiology, Prevention and Treatment of Eclampsia"—Dr. Laetus Sanders, Commerce.

"Nitrous Oxide Gas in Obstetrics"—Dr. H. E. Crow, Talmo.

"Case Report"—Dr. P. Y. Duckett, Cornelia.

"Talk on Some Interesting Cases"—Dr. L. C. Allen, Hoschton.

Election of officers for ensuing year at dinner hour.

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The Floyd County Medical Society has elected the following officers for the year 1921:

President—Dr. Henry A. Turner.

Vice-President—Dr. George B. Smith.

Secretary and Treasurer—Dr. M. M. McCord.

Delegate—Dr. H. A. Turner.

Alternate—Dr. A. C. Shamblin.

Censor for Three Years—Dr. R. D. Russell.

Robert M. Harbin, J. N. Cheney, J. P. Ballenger are the committee of entertainment and arrangements, plus the officers of the local society.

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The Henry County Medical Society reports the following officers for 1921:

President—Dr. W. W. Carmichael, Hampton, Ga.

Vice-President—Dr. J. A. Combs, Locust Grove, Ga.

Secretary and Treasurer—Dr. W. A. Williams, McDonough, Ga.

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The Lowndes County Medical Society reports the following officers for the year 1921:

President—Dr. R. C. Smisson.

Vice-President—Dr. T. E. Pennington.

Secretary and Treasurer—Dr. T. H. Smith.

Delegate—Drs. J. M. Smith; alternate, Dr. A. Griffin.

Board of Censors—Drs. Frank Bird, A. Griffin, T. E. Pennington.

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The Tift County Medical Society reports the following officers for the year 1921:

President—Dr. Carl Pittman.

Vice-President—Dr. I. Willis.

Secretary-Treasurer—Dr. D. B. Harrell.

Delegates—Drs. N. Peterson and V. F. Dinsmore.

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The Warren County Medical Society reports the following officers for the year 1921:

President—Dr. Alton W. Davis.

Vice-President—Dr. Earl K. Lazenby.

Secretary-Treasurer—Dr. F. L. Ware.

Delegate—Dr. Y. R. Maner.

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The Sumter County Medical Society reports that on December 2, in the regular meeting of the society, the following officers were elected:

President—Dr. B. T. Wise, Plains, Ga.

Vice-President—Dr. Wilber Smith, Americus, Ga.

Secretary-Treasurer—Dr. J. C. Logan, Plains, Ga.

Delegate—Dr. R. P. Glenn, Americus, Ga.

Censor—Dr. J. R. Statham, Americus, Ga.

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The Morgan County Medical Society reports the following officers for the year 1921:

President—Dr. A. K. Bell.

Vice-President—Dr. F. M. Prior.

Secretary-Treasurer—Dr. J. H. Nicholson.

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The Polk County Medical Society reports the following officers for the year 1921:

President—Dr. E. H. Richardson.

Vice-President—Dr. S. L. Whitley.

Secretary-Treasurer—Dr. W. W. Tison.

Censors—Drs. J. W. Good, J. J. Cooper, W. G. England.

Delegates—Drs. E. H. Richardson, J. J. Cooper.

The Cherokee County Medical Society reports the following officers for the year 1921:

President—Dr. James R. Boring.

Vice-President—Dr. Newton J. Coker.

Secretary-Treasurer—Dr. George C. Brooke.

Delegates—Drs. James R. Boring and Newton J. Coker.

Censors—Drs. R. M. Moore, T. J. Vansant, Geo. C. Brooke.

The Meriwether County Medical Society reports the following officers for the year 1921:

President—Dr. E. B. Terrell.

Secretary-Treasurer—Dr. Frank Norman.

The Turner County Medical Society reports the following officers for the year 1921:

President—Dr. W. A. Harrison, Sycamore, Ga.

Vice-President—Dr. W. J. Dixon, Rebecca, Ga.

Secretary—Dr. John T. Moore, Sycamore, Ga.

The Worth County Medical Society reports the following officers for the year 1921:

President—Dr. J. L. Tracy.

Vice-President—Dr. W. J. Hall.

Secretary-Treasurer—Dr. W. C. Tipton.

Delegates—Drs. W. C. Tipton, C. B. Weathers.

Censors—Drs. H. S. McCoy, E. D. Ford, T. C. Deariso.

The Bibb County Medical Society reports the following officers for the year 1921:

President—Dr. T. E. Rogers.

Vice-President—Dr. J. P. Holmes.

Secretary-Treasurer—Dr. H. J. Peavy.

Delegates—Drs. C. D. Cleghorn and J. M. Sigman.

Censors—Drs. G. Y. Massenburg, O. H. Weaver, C. D. Cleghorn.

The Gordon County Medical Society reports the following officers for the year 1921:

President—Dr. E. O. Shellhorse.

Secretary and Treasurer—Dr. H. R. Richards.

Berrien-Cook Counties Medical Society reports the following officers for the year 1921:

President—Dr. M. L. Webb.

Vice-President—Dr. C. G. Scruggs.

Secretary-Treasurer—Dr. L. R. Hutchinson.

Delegates—Drs. R. N. Burch, P. H. Askew.

The Barrow County Medical Society was re-organized December 14, 1920, and the following officers were elected for the year 1921:

President—Dr. J. C. Daniel, Statham, Ga.

Secretary-Treasurer—Dr. T. L. Holcomb, Statham, Ga.

A meeting was called by the Vice Councillor, J. M. Anderson, Barnesville, on February 15, and the Lamar County Medical Society was organized with 100 per cent. The following officers were elected for the year 1921:

President—Dr. J. M. F. Barron.

Vice-President—Dr. C. H. Willis.

Secretary-Treasurer—Dr. John M. Anderson.

Delegates—Drs. C. E. Scuggs and M. F. Cochran.

Censors—Drs. J. A. Corry, J. M. Rogers, D. W. Pritchett.

The Grady County Medical Society announces the following officers for the year 1921:

President—Dr. J. B. Warnell.

Vice-President—Dr. J. E. Harden.

Secretary-Treasurer—Dr. J. E. Wright.

The Monroe County Medical Society announces the following officers for the year 1921:

President—Dr. G. F. Williams.

Secretary-Treasurer—Dr. W. J. Smith.

Delegates—To be appointed.

Censors—Drs. G. F. Alexander, B. F. Smith, J. J. S. Wright.

At the annual meeting of the Officers and Councillors of the American College of Physicians, held at Baltimore, Md., February 25, 1921, the following officers were elected:

President—Dr. James M. Anders, Philadelphia, Pa., professor of medicine, Graduate

School of Medicine, University of Pennsylvania.

Vice-President—Dr. Frederick Tice, Chicago, Ill., professor of medicine, University of Illinois.

Second Vice-President—Dr. C. C. Bass, New Orleans, La., professor of research medicine, Tulane University.

Secretary-General—Dr. Frank Smithies, Chicago, Ill., associate professor, University of Illinois.

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At the annual meeting of the members of the American Congress on Internal Medicine, held at Baltimore, Md., week of February 21-26, the following officers were elected:

President—Dr. Sydney R. Miller, Baltimore, Md., clinical professor of medicine, Johns Hopkins University.

Vice-President—Dr. Ellsworth S. Smith, St. Louis, Mo., professor of medicine, Washington University.

Second Vice-President—Dr. James Rae Arneill, Denver, Colo., professor of clinical medicine, University of Colorado.

Secretary-General—Dr. Frank Smithies, Chicago, Ill., associate professor of medicine, University of Illinois.

Treasurer—Dr. Clement R. Jones, Pittsburgh, Pa., professor of medicine, University of Pittsburgh.

Dr. Newdigate M. Owensby, Peters Building, Atlanta, Ga., has recently been elected to membership in the "Societe de Medecine Mentale de Belgique" (Society of Psychiatrists of Belgium).

The meeting of the State Laboratory Directors of the Southern States will be held in Atlanta March 18-19, 1921. Hours, 10 to 12:30 A. M., 2:30 to 5 P. M.

The necessity for an evening session will be determined by the progress made during the first day.

### Program.

#### 1. The Proper Function of a State Board

of Health Laboratory—Mr. Aubrey H. Straus, Richmond, Va.

Discussion may include pre-natal work.

2. Discussion of Standard Specimen Outfits—Unassigned.

3. The Specimen Information Blank—Mr. T. F. Sellers, Atlanta, Ga.

4. Feasibility of Sub-laboratories and the Most Practical System—Unassigned.

5. Control of Public Water Supplies as Related to the State Board of Health Laboratory—Unassigned.

6. Shall Food and Milk Analysis Be Under the Jurisdiction of the State Board of Health Laboratory?—Dr. B. L. Arms, Jacksonville, Fla.

7. Distribution of Biological Products by the State Board of Health Laboratory—Dr. C. A. Shore, Raleigh, N. C.

8. Manufacture of Biological Products by the State Board of Health Laboratory—Unassigned.

9. Should the Free Wassermann be a Function of the State Board of Health Laboratory?—Unassigned.

Discussion should include regulation of fees, distribution of free containers, types of containers, standardization of Wassermann technique.

10. The Diphtheria Carrier as a State Laboratory Problem—Dr. C. R. Stingily, Jackson, Miss.

a. Carrier Detection.

b. Carrier Disposal.

11. Feasibility of the Schick Test and the Toxin-antitoxin Project—Unassigned.

12. Rabies—Dr. F. A. Coward, Columbia, S. C.

a. Control of Animal Carriers.

b. Discussion of the Four Treatment Modifications: Pasteur Method, Hogenes Dilution Method, Harris Method, Cumming Method.

13. Practical Laboratory Diagnosis of Typhoid Fever—Mr. Aubrey H. Straus, Richmond, Va.

14. Pneumonia Vaccine—Dr. L. H. South, Louisville, Ky.

15. Standardization of Laboratory Technique—Dr. G. E. Davis, Little Rock, Ark.



**Doctors' Exchange.**

Mrs. Adeline M. Swagerty, 89 Clifton avenue, has a plan which covers the telephones of doctors during their absence and gives correct information to patients as to what doctor to call in case the family physician cannot be reached. She calls it the "Doctors' Exchange." The plan has been approved by the Fulton County Medical Society, and at the present time she has to her credit nearly one hundred subscribers.

"Suppose you want to call Dr. Smith," said Mrs. Swagerty by way of explanation, "and he is out on a call. Call Ivy 2723, which is the number of the exchange, and we will have the correct information. We will take your number and get into communication with Dr. Smith at once, and tell him to call you. Or suppose he is out of the city. We will have the information at our exchange, and can tell you when he will be back. Before leaving the city Dr. Smith will have told us what doctor he arranged to take his practice for him while out of the city, and we will give the information."

Jack W. Jones, M.D., announces to the profession the opening of his offices at 915-18 Atlanta Trust Co. Bldg., Atlanta, Ga. Office hours, 9 A. M. to 1 P. M. and by appointment. Telephone, Ivy 7419. Practice limited to dermatology, syphilology and Röntgen therapy.

**ABSTRACTS FROM MEDICAL AND SURGICAL LITERATURE.****Sodium Morrhuate in Pulmonary Tuberculosis.**

Biesenthal (American Review of Tuberculosis, Dec., 1920) treated 25 cases with sodium morrhuate,—one of the newer drugs which has been mentioned in this column. Biesenthal used a 3 per cent solution in sterile water, with the addition of 0.5 per cent phenol. No special or serious reactions followed the administration of this drug. The drug apparently had no beneficial effect upon the temperature. Biesenthal came to the conclusion that sodium morrhuate is not a specific for tuberculosis.

**Practical Application and Uses of the Schick Test.**

Zingher (Jour. Lab. and Clin. Med., Dec., 1920) advocates active immunization of all young children from six months to two years, by the use of the diphtheria toxin-antitoxin mixture, in order to bring up a diphtheria-immune population. The Schick test and the control test should be applied to all children over two years of age, and all those giving a positive reaction should be actively immunized with diphtheria toxin-antitoxin. Diphtheria outbreaks can be completely controlled in homes, institutions, and schools, by applying the Schick test and by giving prophylactic injections of antitoxin to susceptible individuals.

**Acute Epidemic Encephalitis.**

Miner and Freeman (Amer. Jour. Med. Sciences, Jan., 1921) report 20 cases of this condition. The age of these patients ranged from nine to seventy-eight years. There were twelve males and eight females. The occurrence of the most prominent symptoms are given as follows:

Headache,	100 per cent
Lethargy,	100 per cent
Muscular fibrillation,	100 per cent
Asthenia,	100 per cent
Cranial nerve paralysis,	100 per cent
Parkinson's mask,	95 per cent
Ataxia,	90 per cent
Delirium,	85 per cent
Catatonia,	80 per cent
Insomnia,	80 per cent
Double vision,	75 per cent
Restlessness,	65 per cent
Reflexes increased,	65 per cent
Choreiform movements,	55 per cent
Polyneuritis,	45 per cent
Kernig's sign,	45 per cent
Paralysis of arms and legs,	25 per cent
Eruption,	15 per cent
Mortality to date,	15 per cent
Average duration of fever, 7 days.	

**Renal Glycosuria.**

Strouse (Arch. Int. Med., Dec., 1920) reports four cases of renal glycosuria. Two patients have been under observation two years, one patient for almost five years, and one pa-

tient for a period of eight years. All your still show glycosuria. None shows symptoms of diabetes mellitus. In one, tests for renal function, seven years after onset, showed no depression of renal function except in regard to phthalein excretion. The two who have been observed the longest show, at the end of four and eight years respectively, a utilization of glucose that cannot be considered strictly normal; one at the end of seven years' observation showing a distinctly pathologic alimentary hyperglycemia. This may indicate the beginning of metabolic disturbance. This study emphasizes the importance of long and continued observation of all patients with this most interesting anomaly.

### Pulmonary Syphilis.

A very interesting case of pulmonary lues is reported by Pontano (Policlinico, Nov. 15, 1920). The patient was a man of 23 who had had remittent fever for four months, and had physical signs in the right apex which were most suspicious of a moderately advanced tuberculosis. However, the patient had a pronounced leucocytosis, slight enlargement of the spleen, and slight peripheral facial paralysis. After three weeks' treatment with arsphenamine and mercury, the lesion in the apex cleared up completely; and, as a result, Pontano felt certain that the lesion was a gumma.

Thomas J. Watkins, THE TREATMENT OF SUPPURATING WOUNDS FOLLOWING ABDOMINAL SECTION. Surgery, Gynecology and Obstetrics, 1921, XXXII, 1.

Many operation upon acute abdomens result in wound infections and suppurations. In many acute infections of the pelvis, where operation is postponed until immunity is established, it is noticed that these wounds seldom suppurate. General immunity to the infection has developed when the temperature returns to normal and the leucocytosis has disappeared.

In operations for cancer of the cervix, the vaginal canal should be thoroughly cleansed and the cervix cauterized prior to abdominal section. In cases of submucous infected polypus, the polypus should be removed and about two weeks allowed to intervene before doing abdominal hysterectomy.

The writer believes that the free use of alcohol in infected pelvic cases at times prevents suppurating of the abdominal wound. To prevent abdominal wound infection by vaginal drainage has been disappointing to him.

Treatment: No sutures are removed until the wound is healed unless it cuts too extensively into the tissues. No drainage is inserted. No probing permitted. Moist dressings of boric acid solution are kept continuously over the wound as long as it remains reddened or indurated. No exceptions are made in cases of infected wounds complicated by intestinal fistulae.

Another consideration in favor of this method is that the mental condition of the patient is not much disturbed.

After fifteen years' experience with this method, the writer finds that the results are better than from more energetic treatment. When draining ceases, no open wound exists and the abdominal wall has almost invariably been as strong as in cases where no suppuration took place.

Hubert A. Royster, SAVING SUPPURATING INCISIONS. Surgery, Gynecology, and Obstetrics, 1921, XXXII, 1.

The perfectly frank suppurating abdomens require an outlet; but doubtful cases rarely require a drain because the condition is mild, not convincingly infectious; otherwise we would not be in doubt.

The greatest loss of time from abdominal operations occurs in cases that are drained, and any method that reduces the confinement period is desirable.

When drainage is required, a stab wound outside the incision is better than a drain through the incision. This insures efficient drainage, and in eight cases out of ten the integrity of the wound is preserved and heals rapidly.

In some cases referred to as doubtful, in which the abdomen has been closed, or in cases where the cut surface of an appendix has been touched to the edge of an incision, the wound often suppurates, though the abdominal cavity remains free from infection; the peritoneum having a stronger resistance than the tissues of the abdominal wall. One is not surprised, therefore, in such instance, to notice a swollen and tender area around the incision four or five days later. The focus of this infection is usually under the aponeurosis and within the muscle fibers. If the incision is closed loosely, suppuration is not so apt to result.

If a wound has suppurated as described, with pain near the incision and rise of temperature, we usually find on inspection an edematous bulging area on one side of the incision. This spot should be injected with a local anesthetic and a bistoury plunged deeply downward and inward, thus evacuating the pus. For the amount of pus removed, a like amount of a 10% melted iodoform vaseline ointment is introduced by means of a glass syringe. This distends the cavity, fills the interstices and solidifies on cooling. The whole area is then covered by a cold wet compress and then an ordinary dressing. This is usually left undisturbed for four days, after which time the wound is found, as a rule, clean and intact. However, should a discharge be noted before the fourth day, the wound may again be emptied by pressure and the injection and dressing repeated.

The iodoform is used on account of its odor in order that it may counteract that of the colon bacillus in the pus. The writer does not claim the melted ointment method as something new either with himself or possibly to others. He used it twenty years ago in treating suppurating buboes and ischiorectal abscesses, and has continued to use and recommend it ever since. While the writer doesn't consider it essential, yet he states that before introducing the ointment, the wound may be washed out with Dakin's solution or a weak dilution of hydrogen dioxide.

George Gillborn, A METHOD OF COVERING RAW SURFACES UPON THE UTERUS. The American Journal of Obstetrics and Gynecology, 1920, I, 3.

It is a surgical axiom that raw surfaces within the abdominal cavity should be covered with intact peritoneum. This is a simple procedure in many cases where the area of denudation is small on a favorable



location. In cases of extensive intestinal tract involvement, or where large and widely adherent ovarian tumors or fibroids are involved, it is often found impracticable, for obvious reasons, to stitch over the denuded area.

**Problem:** A Gilliam operation or substitute on a case of retroversion. Adhesions that held the uterus in the culdesac are broken up. The round ligaments are shortened and we see the uterus lying in normal position with a more or less extensive area of denudation on the fundus which invites the formation of new adhesions. This problem also applies to a case of inflammatory process of one or both tubes. In cases requiring extirpation of both tubes as a result of gonorrheal infection, the writer prefers panhysterectomy, after which the operative field is easily covered with intact peritoneum. He realizes that such radicalism has not become general practice as yet, therefore the question is, how can we protect the uterus, useless though it may be as an organ, from further harm?

**Technique:** With a volsellum, the fundus is pulled backward and upward in the direction of the promontory. The reflexion of bladder peritoneum upon the cervix is incised transversely as in hysterectomy, and pushed off from the uterus. The uterus is tilted forward, the bladder peritoneum pulled over the uterus and stitched to the posterior aspect of the fundus, where an intact peritoneal surface presents itself. By careful suturing, the entire raw surface is covered.

While this method safeguards a normal position and mobility with satisfactory late results, yet it, in itself, is not to be relied upon in a case of retroflexion. In such a case the writer proceeds as follows: First, the bladder peritoneum is loosened as above described. Second, the round ligaments are shortened. Third, the denuded area on the uterus is covered by bladder peritoneum and fastened.

The writer states that he has used this method for six or seven years, and has never observed instances of vesical disturbance other than those that may follow any laparotomy. The filling of the bladder with urine, he says, will cause neither subjective or objective disturbances. The same freedom of the bladder obtains in pregnancy. One case miscarried at four months. Another is four months pregnant and has no bladder symptoms. None of his other private cases have conceived so far, and his knowledge of hospital cases is limited because of undeveloped follow-up system. Theoretically, the probability of pregnancy in these cases is not very promising because of probable pathologic or mechanical changes in the uterus, tubes or ovaries, and perhaps azoospermia in the husband.

As a method of preventing uterine adhesions, the writer considers it so self-evident and simple that he does not doubt but that others have devised the same method for themselves.

Speed Kellogg, *TREATMENT OF FRACTURE OF THE FEMUR*. Archives of Surgery, 2921, Vol. II, 1-45.

The author reviews the statistics on fractures of the femur from several large general hospitals and brings out forcibly the generally poor records kept of these cases, the absence of any attempt at standardization in treatment, and the unsatisfactory end results.

A suggestion is made that a standard treatment of the fracture of different parts of the femur be divided according to the site of fracture, thus—neck, intertrochanteric, subtrochanteric, shaft, supracondylar, epiphyseal separation, and condylar.

The writer takes up the management of fractures at each of these anatomical sites, gives a clear illus-

trated description of each, including the complications of nonunion and delayed union, and cites those instances where immediate open operation for reduction is indicated.

This article is a most complete and comprehensive treatise on fracture of the femur. It should be read and studied by all surgeons attempting the management of such cases, and should be cited to students as authority on this subject. Certain details might be varied in by certain men and the same end result be obtained, but the basic things as set forth by this author are principles.

The following conclusions are given:

(1) Because there is no accepted American standard of results after fracture of the femur, there is no American standard of treatment.

(2) A large percentage of the fractured femurs are cared for by the first physician who sees them; specialists are not employed to direct treatment.

(3) There is not sufficient effort put forth to use abduction or suspension traction methods, as obtained by the Hodgen or Thomas splint in fractures of the shaft, which may allow knee motion during the course of bone repair without disturbing the extension.

(4) Portable Roentgen-ray outfits should be furnished in all hospitals treating fractures of the femur, so that results in the course of treatment can be checked as frequently as desired.

(5) There have been too many operations performed on fractured femurs by inexperienced operators, and without proper indication.

(6) Very little attention is given to massage and electrical stimulation of muscles during bone repair and still less is given to after-treatment, so that many patients are permitted to bear weight on soft callus. Disability results. Walking calipers are little used.

(7) The remedies suggested are:

(a) Every patient with fracture of the femur should be directed to a hospital for Roentgen-ray examination, correct treatment by any of the accepted methods, and after-treatment when cured. This includes fitting the patient with a walking caliper as soon as he is ambulatory or on his discharge from the hospital.

(b) Because fracture tables offer good means of securing reduction and an easy method of external splinting by plaster of paris, every hospital receiving cases of fracture of the femur should possess a fracture or orthopedic table. Careful records should be kept in accordance with a fracture record sheet, such as has been compiled by the American Surgical Association, so that a large number of average results can be grouped, that treatment looking toward the ideal may be worked out.

O. L. MILLER, M.D.

## BOOK REVIEWS.

Edward O. Otis, A.B., M.D., *PULMONARY TUBERCULOSIS*. W. M. Leonard, Boston, Publisher.

This is the second edition of a manual, as the author states, and not a treatise upon the subject. The book is intended for students and the general practitioner, who is usually a busy man. As such it is complete and the reading matter is not uninteresting.

The subject is covered in fifteen chapters, the last being devoted entirely to cases. Throughout the book there are case histories cited which are very interesting and which break the monotony that is usually present in the reading of text-books.

One chapter is devoted to the history of tuberculosis and traces it from the time of Hippocrates to the present. A history of the work of several prominent students of this disease, such as Robert Koch and E. L. Trudeau, is recorded in this chapter.



The author lays a great deal of stress upon the symptoms in helping one to make a diagnosis of tuberculosis. He points out that in the early cases of this pulmonary condition the symptoms are often all that we have upon which to make our diagnosis, and as he cautions us, "symptoms frequently appear when no physical signs can be detected in the lungs." Too many of us are prone to wait until the disease has progressed sufficiently far to cause many physical signs before arriving at any conclusion. This procedure the author warns against.

The chapter on treatment we think especially good, since it will give to the beginner and the man who has only an occasional case of pulmonary tuberculosis to treat, a very nice idea of how to handle that case. However, one must not lose sight of the fact that each patient is a law unto himself and must be handled and treated accordingly. In addition to the general line of treatment his readers are told of the especial methods of treatment and the treatment of special symptoms.

We can recommend the book to those for whom it is intended, the student, the man who is beginning to treat pulmonary tuberculosis, and the man who sees only an occasional case.

A. M. DIMMOCK.

E. W. Carpenter, M.D., Greenville S. C., FORTY FOREIGN BODIES IN THE LUNGS, ESOPHAGUS AND INTESTINES.

The early recognition and treatment of foreign bodies in the lungs, esophagus and intestines is emphasized. The treatment has proven far less dangerous than the presence of the foreign body. No anesthesia is used in infants and children and dyspnoea is a strict contraindication to a general anesthetic. Twelve per cent of the cases required post-operative intubation. In one case an O'Dwyer tube was responsible for a fatality, and in another case the pressure of the speculum on the trachea caused a temporary collapse. The author stresses the usefulness of the endoscope as a diagnostic instrument in various diseases of the larynx, bronchi and esophagus.

EDGERTON.

### MENTO-DENTAL SINUS OF PECULIAR ORIGIN CURED BY UNIQUE TREATMENT.

M. B. HUTCHINS, M.D.,  
Atlanta, Ga.

MRS. W. AGE 25.—Occasional deep acne of chin, as is frequent in young women beyond the usual acne age. There were a few of these on first examination, March 22, 1920. A bit to left of center of upper part of chin was a funicular, apparently shallow cavity partially filled with soft granulation tissue. The patient stated that the lesion followed frequent squeezing of a supposedly deep acne lesion. Granulations were destroyed with deliquesced caustic potash, after the method occasionally employed in the treatment of granuloma pyogenicum. Vaseline and cotton were used as

dressings. April 12. Dressings and been discontinued. A small crust was removed, exposing a shallow (?) erosion. The lesion healed over, but on May 10th there were pus and new, soft granulations in a pencil tip sized opening. Ninety-five per cent phenol now applied. May 31st. Caustic potash again used. Alterations of healing and breaking, with pus, and granulation tissue; and various caustic, even fuming nitric acid, treatment continued, with airtight cotton and adhesive dressing, until July 19th, at which time a probe was gently inserted until it apparently touched the root of the right lower first incisor.

August 23rd. Accurate history of the case was obtained. Months before there had been a grossly neglected furuncle or abscess of slow evolution, involving the greater part of the chin, its main bulk on the right, but final discharge on the left at site of present sinus. Shame at neglect had induced withholding of the true history. The feel to the end of the probe was leathery, inflammatory peridontium or alveolar periosteum. Phenol and Tinct. Iodin were effective. Illustration shows course and direction of sinus. At the time Roentgenograms were made the incisors were tested by heat and cold and other means, showing no evidence of disease. The shadow at end of director was thought either to be an accident of

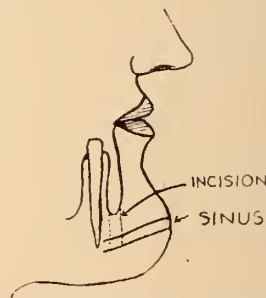


Diagram illustrating Sinus and Operation

angle or possibly densely thickened periosteum\*. To avoid removing one or more of these perfect teeth or an external dissection, the following procedure was adopted. (See diagram.) The grooved director was left *in situ*, and one per cent procaine solution injected into the tissue between base of lip and alveolar process to end of sinus. A transverse incision one fourth inch long and one half inch deep

was made to level of floor of sinus, blood immediately showing at external opening upon withdrawal of director. Ninety-five per cent phenol was thoroughly applied to incision, and especially to its angle with the sinus at bottom. All granulation tissue was "reamed out" of sinus, the incision alone packed with cotton, firmly and deeply, and mouth of sinus dressed with cotton covered airtight with adhesive. To be renewed daily.

August 25th. External cotton wet with saliva (?) and serum.

August 27th. Same external condition, cotton out of granulating incision for 24 hours. Phenol ninety-five per cent again put down in to angle and cotton packing applied.

August 30th. Only a shred of cotton in incision. External opening of sinus nearly closed. Cotton dressing slightly damp. There has been no pus since operation.

September 2nd. Externally healed, slight stain (pus?) on internal packing. Incision very shallow. A little cotton put in. No external dressing.

September 6th. Thin epithelial crust exter-

nally. Incision almost healed; entirely so on September 9th.

September 13th. External scar about 5 cm in diameter, suspiciously puffy. Incision within was reopened, by puncture to bottom, blood alone following pressure. Course of sinus firm and tough to touch.

September 20th. Puncture healed, external scar very firm, split pea size and shape; satisfactory. Incision, phenol and packing stopped drainage through sinus and destroyed the infected focus. Had the furuncle or abscess been higher up, on the surface of lower lip, it would have followed the direction of least resistance, traversed the tissues of the lip, thus emptying through a break in the mucous membrane, and healing without visible scar, as in two other cases.

This case recalls to mind that of a man who had a persistent sinus between maxillary angle and mastoid, following an operation, and which could not be permanently healed. It was finally decided that the focus of infection was on the styloid process. The patient refused operation, and passed from observation.

\* Not available, or suitable, for reproduction.

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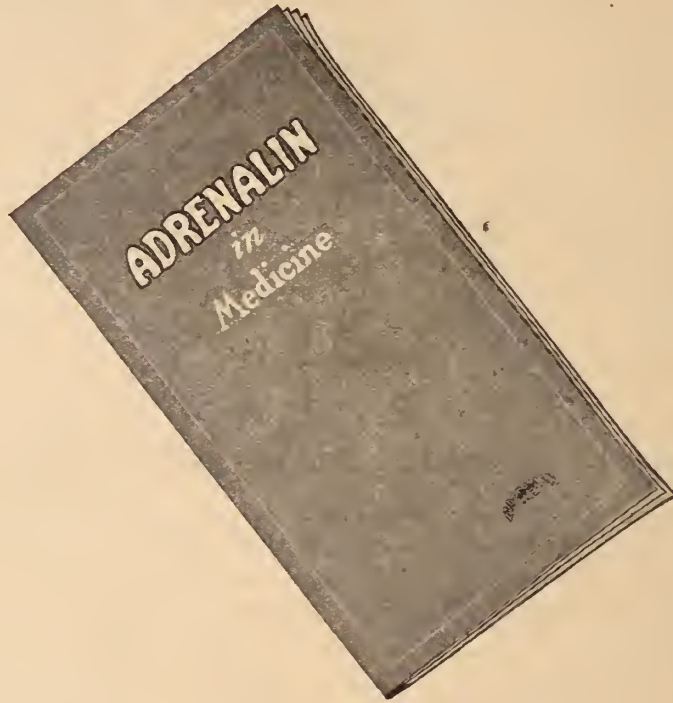
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### ORIGINAL ARTICLES

#### SURGICAL KIDNEYS.\*

J. P. Proctor, M.D., Athens, Ga.

Mr. President and Gentlemen of the Eighth District Medical Society:

This paper is presented to you with due apologies to whomsoever may have written or knows anything about kidneys. Its contents are gleaned from my personal observations and, consequently, may be at variance with the views of some others. It shall not be a treatise on the classical "Surgical Kidney," but will embrace a variety of cases of kidneys which are amenable to surgery alone (excepting congenital anomalies) and for each class I shall report one typical case. These classes I give in the order of the frequency with which I have encountered them.

It is not necessary to dwell upon the importance or the anatomical structure of the kidney. Its position in the body renders it difficult of direct and exact examination except by specially designed instruments in the hands of experts. Therefore, it takes a diagnostician of no mean ability to be able to say always that he has to do with a kidney which even belongs to the realm of surgery, much less to say what the condition is that places it in this class. To identify a surgical kidney is one thing, and not always easy—to specify why it is surgical is another and much more difficult undertaking.

The general practitioner bases his diagnosis upon the history, the subjective and objective symptoms and the urinalysis. The

subjective symptoms of a large percentage of surgical conditions of the kidney bear a marked similarity not only to each other, but also to other conditions separate and distinct from the kidney. Many an abdomen has been opened and a practically innocent appendix removed, when the right kidney should have been indicted and attacked by the surgeon, leaving the patient to go on to some other surgeon for the relief the first one should have given. The symptom complex of pain in the kidney region, radiating forward and downward along the course of the ureter toward the bladder, and some times down the thigh and leg to the foot, and associated with cramps; with or without tenderness; nausea, vomiting, abnormal bladder action, haematuria, pyuria, are the cardinal symptoms of renal calculus, pyonephrosis, pyelitis, hydro-nephrosis and floating kidney.

The general practitioner's most valuable clue may be found in the urine. The specimen he examines is usually voided by the patient, but even though it be catheterized from the bladder by the physician or nurse, practically any of the findings may have originated in the kidney, pelvis or ureter of either or both sides, or in the bladder; and the pain may be referred to the sound side, again leading him off on a false trail.

*Class I. Floating, Migratory or Wandering Kidney.*—Usually found in anemic, emaciated, relaxed individuals and is often associated with a general visceroptosis. The symptoms are often in inverse ratio to the extent of the kidney's wandering, dependent upon the nervous stability of the patient. Most of the subjective symptoms of floating kidney are of mechanical origin, either from direct pressure upon some other organ by the kidney in its abnormal position, or by kink-

\*Read before the annual meeting of the Medical Society of the Eighth Congressional District of Georgia, held at Watson Springs, Ga., August 11, 1920.



ing of the ureter with a resulting blocking of this passage. It may present a typical renal crisis in some cases in which the abnormal excursion of the kidneys is of only mild degree, while in others in which the kidney wanders at will about almost the entire abdominal cavity and even into the pelvis, the patient may complain not at all.

Mrs. C. E. was referred to me by Dr. Fullilove for confirmation of a suspected pyonephrosis. While a specimen catheterized from the bladder showed no haematuria or pyuria, so typical of pyonephrosis were the patient's subjective symptoms that it seemed probable that there might be an obstructed ureter keeping back the pus from the bladder. Cystoscopy revealed a normal bladder. A No. 6 catheter was passed into the right ureteral pelvis without trouble and normal urine withdrawn. The capacity was 7 cc. and radiograph showed the kidney several inches below its normal position, with the ureter correspondingly distorted. Nephropexy relieved the woman of all symptoms and she gained weight while lying in bed.

*Class II. Infected Kidneys Without Stone.* It has been my experience that this class is exceedingly common. The extent of the condition varies from pyelitis per se to sacs of pure pus which were once kidneys. They are both chronic and acute. Even in the chronic type we generally have occasional attacks of acute pain coupled with the other symptoms of the renal crisis group.

Mrs. D. B. T. was referred to me complaining of constant dull aching pain in the region of the right kidney, with frequent and annoying bladder symptoms. Urine catheterized from the bladder showed detritus, pus, epithelium and a few red blood cells. Double ureteral catheterization showed normal urine from the left kidney, while that from the right showed considerable pus and large quantities of epithelium. No evidence of stone could be found with the X-ray. The capacity of the right was 12 cc. and of the left 7 cc. The condition was explained to the patient and she insisted upon nephrectomy. This was done and, while the kidney appeared macroscopically innocent, the woman was relieved of all the pain she had complained of

prior to the operation.

Acute infections going into grave suppurative process present the most urgent of the surgical lesions of the kidney. In many cases the onset is sudden, the progress rapid, and the patient is apparently desperately ill before we realize it. In addition to the classical symptoms of renal crisis, there are chills, high fever, sweats, with rapid thready pulse, dryness of the mouth, coated tongue and the once-seen-never-forgotten facial expression of general sepsis.

S. P., a young man of splendid physique and a negative history, was taken suddenly ill in the night. His physician found him in the agony of typical renal crisis, and diagnosed kidney stone. The usual medicinal measures were resorted to, with practically no relief. Several days afterward the man was referred to me. Palpation and inspection revealed nothing beyond slight tenderness. No stone could be demonstrated by X-ray. Ureteral catheterization revealed normal urine from the left kidney and a mild pyuria from the right. The capacity of neither side was markedly increased. The man's symptoms were growing worse, and exploratory operation was decided upon. The perinephritic fat was found hard and boardlike. When this was stripped away, the kidney was found to be three times its normal size and was removed. Upon examination, several abscesses, each containing about a drachm of pure pus, were found between the capsule and cortex of the organ. The man made an uneventful recovery.

Occasionally acute exacerbations occur in kidneys which have been known to be chronically infected for some time and are prone to be exceedingly grave.

Mrs. C. W. D. presented herself for examination about one year ago. She gave a history of having had a right nephropexy done eight years previously and having had no further annoyance, though the urine showed pus at several subsequent examinations. She complained of general pelvic discomfort, with an aggravating leukorrhœa, though she had passed her menopause. Examination revealed the cervix normal, but the uterine body was greatly enlarged. Subtotal hysterectomy was



done and the woman had an uneventful recovery for two weeks, at the end of which time she was suddenly seized with severe pain in the region of the right kidney. Within 24 hours her urine was loaded with pus. Chills, fever and sweats came on, and there was a decided mass and marked tenderness in the right kidney region. Double ureteral catheterization was done, the specimen from the right appearing to be almost pure pus, while that from the left showed pus, blood and epithelium. Pain and tenderness then appeared in the region of the left kidney. Right nephrectomy was plainly out of the question. Medical treatment was instituted, and, after several weeks of careful nursing, the patient recovered sufficiently to leave the hospital. For several months she did fairly well, but, in spite of tonics and forced feeding, failed to gain much ground. Then the kidney symptoms came into evidence again. Double ureteral catheterization and pyelography revealed the conditions shown in the X-ray plates. The urine from the left kidney is normal chemically and microscopically; that from the right shows pus and large quantities of epithelium.

No condition can arise which is more alarming than an acute pyonephrosis complicating pregnancy. It is comparatively common and usually comes in the latter months of the pregnancy; is sudden in its onset, oftentimes without definite origin. These patients become ill in an astonishingly short time. Sometimes only delivery of the child will save them, and even this may fail.

Mrs. D. I. G., seven months pregnant with her second child, in stepping from the curb to the street, lost her footing and fell. Within a few hours she was taken ill with a severe pain in the right kidney region. Her physician was called and found her suffering intensely, nauseated, chilly, with temperature 103 and pulse 120, tenderness over the right kidney and along the course of the right ureter. The voided urine was loaded with pus. I was called in consultation a day or two afterward and found the woman distinctly septic. Urine catheterized from the bladder was loaded with pus. Double ureteral catheterization was done, almost pure

pus coming from the right catheter and normal urine from the left. The right kidney was thoroughly drained through the catheter and irrigated with sterile normal saline until the solution returned clear. The capacity of the right kidney was 45 cc. Bacillus coli vaccine was administered daily for three days. By the second day the temperature had dropped to normal and remained so, and the pain and tenderness disappeared within a week. The pregnancy went on to full term and was normally terminated.

*Class III. Renal Calculus.*—Renal calculus or stone in the kidney is fairly common, but not nearly so much so as was clinically diagnosed before the advent of the X-ray. For many months I searched diligently with the X-ray for stones which were clinically present, and found them in only a small percentage of cases. The catheterizing cystoscope convinced me that kidney infections were much more common than kidney stones. These stones may be composed of phosphates, urates or uric acid, the first two being demonstrable by the X-ray, while the third is not. They may vary in size from that of a grain of sand to that of an orange or even larger. They may or may not give fairly definite indications of their presence, depending largely upon whether or not they attempt to pass from the kidney to the bladder. When they do attempt to pass, the symptoms are those of a typical renal crisis. They may remain quiescent and their presence only suspected from symptoms referred to the bladder and the finding of pus and blood in the urine. Even these uncertain indications may be wanting, even though one or even both kidneys contain stones of considerable size.

Mrs. G. P. was referred to me after having complained for several years of dull pain in the region of the right kidney, associated with bladder symptoms which became very annoying. At last her physician told her the condition was surgical and that he could not give her any relief. Upon examination the woman appeared well nourished and said she had assisted her husband in gathering fodder the day before. Physical examination of the right kidney region was negative. The urine, catheterized from the bladder, was heavily

laden with pus. Double ureteral catheterization yielded about half an ounce of pure pus from the right kidney, after which there was no flow from the catheter. The left catheter drained normal urine. Injection of the right kidney showed a capacity of 75 cc. X-ray showed a large branched stone. Nephrectomy was done, the kidney being about five times its normal size and containing a stone which weighed 1001 grains. The portions of the kidney not occupied by the stone consisted of pockets of pure pus. There was no normal kidney structure left. The woman had an uneventful recovery, and has gained about 40 pounds in weight since the operation, which was less than one year ago.

*Class IV. Malignant Kidneys.*—These may be either carcinomatous or sarcomatous, but are usually sarcomatous. In my practice they have occurred more often in children and young adults than in older people. The development is usually insidious, most often not being suspected until the patient notices a mass in the region of one or the other kidney. They are usually ascribed to a blow in the affected side. There may or may not be hæmaturia, and such discomfort as is caused is either described as an ache or a heaviness.

E. G., age 16, a boy who gave a history of having been struck in the right loin by a plough handle while ploughing. For several days there was pain of considerable severity, with tenderness and hæmaturia. The pain and tenderness disappeared within a few days, but the hæmaturia persisted. Two months later, while in the act of throwing a baseball, this boy was seized with a severe pain in the region of the right kidney. This pain persisted, fever developed, and the urine showed an increase of blood. A mass appeared in the region of the right kidney and was tender to

touch. I was called in consultation and agreed with the attending physician that we had to contend with a perinephritic abscess. Upon making incision over the right kidney, it was found that we had an inoperable sarcoma to deal with. The boy died promptly.

*Class V. Hemorrhagic Kidney (?)*.—This is a condition of which I know but little, and have a hesitancy in speaking of it, though have decided to do so because of the one case which has come under my observation, for which I could find no more appropriate name.

L. O. C., age 59, a farmer, came to me for diagnosis last August. The man was emaciated and weak and his skin had a peculiar bronzed appearance. He gave a history of having been told for several years that he had kidney trouble, but the nature of this trouble had not been decided upon. His urine was normal, both chemically and microscopically. Upon physical examination of the man I found a large mass extending from the left vertebro-costal angle to the anterior abdominal wall. I could not decide between the spleen and kidney, so made an incision to the left of the left rectus muscle. The splenic flexure of the colon, together with several coils of small intestine, were found tightly adhered to the anterior surface of the mass. The mass was immovable. After some considerable tedious dissection, the mass was found to be the left kidney, freed and removed. Upon examination this mass proved to be a sac of disintegrated blood, comprising all of the left kidney with the exception of a small portion of the lower pole. It was as large as a coconut, and showed none of the characteristics of a neoplasm. The man made an uneventful recovery, and has gained considerable weight within the past ten months.

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## IMPLANTATIONS IN THE SUNKEN ORBIT AFTER ENUCLEATION OF THE EYE.\*

J. C. McDOUGALL, M.D.,  
Atlanta, Ga.

The wounded soldiers of the world war furnished a wonderful opportunity to the ophthalmologist in the advancement of plastic surgery of the eyelids and orbit. The writer was fortunate in being stationed at U. S. A. General Hospital No. 2, Fort McHenry, Md. (on returning from France), where the great majority of eye cases from the A. E. F. were sent for reconstruction surgery.

Most of the eyes had been enucleated in field or evacuation hospitals, where they had to be done in great haste, and mostly by surgeons not trained in this specialty; so naturally the cosmetic result was not considered at this time.

It is the exception that there is not some sinking in of the orbit after the removal of an eye. Occasionally a reform prosthesis can be fitted with good appearance but the movement is very poor if any at all.

Primary implantations, i. e., the insertion of a foreign body at the time of enucleation, has been practiced for several years with fairly good results, and the suture of the four recti muscles has proven to be a decided advantage. The failures in these operations have been the subsequent loss of the implantation from one week to three months after it was put in the orbit by breaking through the closure or the so-called absorption of the fat graft. The conclusion was that a better method was required to hold the implantation in place in the orbit. After much experimentation, we devised a technique of closure of Tenon's capsule and the conjunctiva which has proven satisfactory in a long series of cases and has eliminated the chief cause of failure in implantations in the orbit.

I will briefly describe the technique in a primary implantation.

Incise the conjunctiva around the limbus in the usual manner and dissect it far back all around, freeing it entirely from the muscles and Tenon's capsule. Pass the squint hook

under each rectus muscle and grasp it with a muscle clamp. Dissect the muscle free from the sclera and Tenon's capsule. Cut the optic nerve and remove the eye. After hemorrhage has completely ceased, insert the implantation. Draw the superior and inferior recti muscles across and tie with chromic gut.

Do the internal and external recti muscles in the same manner. The important part of this closure is Tenon's capsule, which corresponds to the peritoneum in an abdominal closure. Divide the capsule into four parts, use a double-arm chromic gut suture, insert in flap of one quadrant from below upwards, then place the next quadrant over this and insert the sutures in like manner, and so on around until there is a four-ply closure under the tied suture. This makes a strong wall at the greatest point of resistance. Close the conjunctiva with interrupted silk sutures, arranged horizontally. Silk has been used for the buried sutures also with as good results. This closure gives us three separate tissues over the implantation. With the rare exception of an infection, there is no chance for losing the implantation.

A secondary implantation is where a foreign body is implanted in an orbit that has had the eye removed some time before this operation. Here we have tissues bound together with scar tissue, the muscles buried in the capsule, and often pieces of sclera in the orbit. It is a far more difficult procedure than the primary implantation I have just described. The technique is as follows:

Make a horizontal incision in the conjunctiva from internal to external canthus, dissect it free from Tenon's capsule, being very careful not to perforate the conjunctiva; then this can be placed under the lid speculum. Make a vertical incision in Tenon's capsule and free it completely from the orbital tissue. The recti muscles are found on the posterior surface of the capsule. This is the reverse order in the primary implantation, as the muscles come out above the capsule and attach to the sclera. Each muscle must be dissected out freely. In several cases we dissected out the oblique muscles, but found no advantage in motility of the glass eye afterward. The implantation is inserted and the closure made exactly in the same manner as I described in

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



the primary implantation operation.

Having described the technique of implantation, the next question arising is: What is the best foreign body or implantation to use in the sunken orbit to obtain the best result? The ones that we have used are gold and glass balls, bone graft, facia lata graft and fat graft.

We first did a series of glass ball implantations, using an 18 to 22 m.m. sphere, depending on the size of the orbit. It was found that these gave very good motility to the artificial eye and the exophthalmus was excellent, but in most of the cases the spheres set too high or too low in the orbit. Some would be centered correctly, but that was only luck, as we had no assurance that the prothesis would look up, down or straight ahead.

In the second series we used facia lata graft in the orbit. This was taken from the hamstring muscles of the thigh. The result of these implantations was very good, with the exception that a larger percentage became infected immediately after the operation. The artificial eye set straight, motility was excellent, and there was no chance for the graft to be absorbed. The operation required to obtain the facia lata graft is quite a big procedure, taking as much time as the implantation operation, and requires the patient to remain in bed for two or three weeks, having much pain, a long scar on the thigh and the possibility of having an infection in the leg. Therefore the facia lata graft is not advisable when a more accessible graft has been found to give as good results.

The third series is the fat graft. This is very easily taken from the abdomen or the thigh. Occasionally a patient will be so very lean that he will have no fat in these localities. Then we have to take the graft from the cheek of the buttocks as a last resort. The graft is implanted in the same manner as with the glass sphere. One should be very careful not to macerate the fat globules, as this is what causes such marked reaction following fat implantations. It is well not to use too large a graft. It should be just a fraction larger than the eyeball. Grasp the fat graft firmly with tenaculum forceps and hold it firmly back in the orbit until the muscles and Tenons' capsule are firmly sutured over and closed, otherwise it will continually bulge forward and hamper the

operation materially.

The eyelids should be kept well closed over the conjunctiva after any implantation operation, in order to prevent a bulging or hernia, which causes the prothesis not to fit properly.

The chief criticism of the fat implantation is that it is so often absorbed and the operation has accomplished nothing. This criticism is based on observation of primary implantations where the old method of purse-string closure of Tenon's capsule and the conjunctiva was used. Personally, I do not think that the fat graft absorbs very much. There is no pathological reason why it should absorb readily in the orbit and live and even grow in other parts of the body. The bulging of the orbit containing a fat graft does decrease somewhat in the primary implantations, but is not absorbed entirely, for the fat infiltrates in the loose tissues and optic foramen. In the secondary implantation we find that orbital tissue firmer and well contracted, so the fat graft retains its shape and there is very little or no sinking of the orbit.

A bone graft has been used in the orbit in a few cases, taking a piece of rib and implanting it, as it was found handy in war surgery; but I do not think this graft affords any advantages.

The results obtained in both the primary and secondary implantations of fat in the sunken orbit are conclusive that this operation affords a great improvement in the appearance of a patient who has lost an eye. The technique is simple, the graft is easily obtained, the patient should not be under the anæsthetic over an hour, and the results are very good. In many cases it is hard to tell which is the glass eye, as the movements are excellent.

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#### DISCUSSION OF THE PAPER OF DR. J. C. McDOUGALL.

Dr. Dunbar Roy, Atlanta: This paper should not be passed over without some discussion. The essayist has been in a position to have a great deal of experience in this line of work, and the work he has done, and the opportunities he has had of doing an operation like this are remarkable. The trouble is that unless one is in a large clinic he does not have an opportunity to experiment much along the lines laid out by Dr. McDougall. For a long time the great trouble has been to get a sufficient cavity and sufficient protrusion in all directions and to have the eye look as near natural to the other eye as possible.

Dr. McDougall has called attention to the various methods used. The glass balls have been unsatisfactory because they break and produce a great deal of

traumatism, causing more trouble than the patient had before. The gold ball is used by Dr. Webster Fox, of Philadelphia, as a primary operation, but some months after enucleation has taken place, his method is to cut down through the tissues of the conjunctiva and Tenon's capsule into the fat, making a large horizontal incision so as to enlarge the opening in the cavity which already exists, and then he shoves the gold ball in and brings the tissues together. I have seen some of these cases and they are beautiful to look upon. With the shell eye which slips in afterward, the results have been satisfactory. Of course, the gold ball is expensive, and it is not always successful. Frequently it has protruded and you have a condition of shrinkage in there which is not as good as before.

The bone graft has not been successful. At the present time, the fat graft, as outlined by Dr. McDougall, seems to have the best opportunity for giving us a cavity upon which an artificial eye will fit. The point of absorption is a question that has to be followed out. You cannot tell very much about these things until you have seen them a good many years afterward, particularly in the ordinary cases where you do not use fat implantation, but if it will enable you to have a better prosthesis, you open where the artificial eye will rest and give you a better movement, it is a result to be wished.

As to the question of infection, I do not see any reason why we should have any more infection than in other implantations. The only thing is the question of absorption. If this will aid us in getting a better cavity for putting in an artificial eye, I think it certainly is a method that should be used.

I wish to congratulate Dr. McDougall on his experience and to say that a paper like this is always of benefit to the association because it shows a certain amount of original work, and that is what we want. We want something that will add to the sum total of our knowledge, and the work he has done and the method he has reported are certainly worthy of the highest commendation.

DR. HARRY C. SCHMEISSER, Atlanta: The use of fat for the purpose of filling the orbital cavity is based on certain well known fundamental principles, and these I would like to bring before you. It seems to me that has been expressed by the last speaker (Dr. Roy) very clearly when he refers to the graft. Now, having a cavity, the principle of the body is to fill out that cavity with fat, no matter where the cavity is in the body. But here we have a large cavity and you must get connective tissue in that bony framework, because fat deposits itself in connective tissue cells, so that the principle of the graft is to place in a piece of fat tissue, the opening need not be particularly large, but just enough to give a framework of connective tissue into which the fat can be placed. You see that under the microscope. You have your framework of connective tissue with some fat already in there. The question is, how are we going to get the proper amount of fat present? You know yourself it is difficult to get a lean person fat or a fat person lean. That is dependent upon the metabolism of the individual. If the individual is inclined to hold fat in his body, this mass of connective tissue in the orbit will contain fat, and the fat will not disappear. On the other hand, if the individual is inclined to be lean, the fat will be absorbed. But if you can by some method known to clinicians increase the fat of the body, you will increase the fat of this graft, and if you decrease the fat in the body you also decrease the fat in this graft. Raising the bone marrow is a question in point. It is necessary to have a framework of fat tissue in between the fat bases. In the reticulum are the little nests of bone marrow cells, and from these cells the circulation of red blood corpuscles is apparent. We spoke of raising the bone

marrow because it produces enough blood cells for the circulation to keep up and destroy the cells of the circulation in a normal individual. But suppose we have a secondary anemia of severe grade or pernicious anemia, it is a more drastic picture. Here there is a primary destruction of the red blood cells which disappear from the circulation at such a rate that the red cells in the bone marrow are called upon to produce other blood cells. As a result, the bone marrow becomes hyperplastic and requires spaces which the fat has under rising conditions taken up. The fat disappears from the bone marrow, and we have a cross section of bone marrow filled with hyperplastic bone marrow cells. Physiologically fat is taken away when the space is needed. In raising the bone marrow the fat is deposited where you need spaces to be filled. That is the principle of filling the orbit in the eye. If you have a framework in which fat can deposit itself, keep all fat there by normal means. If you take away fat, use those means by which you make an obese person lean. If the graft has taken and you have blood supply coming from the graft, if you work aseptically, there should be no reason why it should slough out. You should have a perfectly beautiful graft of connective tissue in which the fat settles.

DR. A. G. FORT, Atlanta: I would like to ask Dr. McDougall what has been the reaction in these cases? In the cases I have seen the reaction was severe. I have never seen infection. I have also noted in one particular case, where the individual was rather obese, we put in a large graft, the individual returned in about four months, and there was bound to be considerable absorption, although in other parts of the body he did not lose fat. So from that one case I could not form a definite opinion, but it would give me the idea that it is not so much the fatness of the individual as to whether or not you can get the fat graft to hold as the speaker who preceded me would lead us to believe. Furthermore, if that were the case, when you pull a tooth you would have the tooth cavity filled up with fat tissue, or if you removed other portions of the body you would have the spaces or cavities filled up with fatty tissue, but we do not have it that way.

DR. J. C. McDOUGALL, Atlanta (closing the discussion): Dr. Roy mentioned the breaking of the glass ball. That is often the case. I have seen two cases in which the glass ball was broken and had to be removed. In one case of a man in the Army, who was struck in the eye, the glass ball did not break at all. If it should break, there is no great danger, as the eye can be opened up and the glass ball taken out.

The second doctor who took part in the discussion (Dr. Schmeisser) referred to building up the general condition of the patient after the fat graft has been implanted. I think that is an excellent idea. We want to increase the fat of the individual, and we do that by building up the general health and to get everything in as ideal condition as we can in order to make the fat stay there and increase it, if possible.

I saw the case of a general surgeon who planted a fat graft in the mammary gland and made a gland larger than the other one. This was done three or four years ago and the individual became fat generally, and the surgeon said the mammary gland had attained the size of a water bucket and he had to take it out. Of course, I have never seen that occur in the eye (laughter), but certainly it is possible with fat implanted in the orbit to increase in the same proportion.

Dr. Fort mentioned about reaction in these cases. We certainly do get a marked reaction in a great many of these fat implantations. It is often due to maceration of the tissue, and so the fat graft should be handled very carefully and deliberately. If you handle it that way you will not notice so much reac-



tion. You usually get more reaction from fat implantation than you do from a glass ball or gold ball or any other we have tried.

### **DIPHTHERIA: PROPHYLAXIS, SYMPTOMS AND TREATMENT, WITH SPECIAL REFERENCE TO INTUBATION CASES.\***

C. A. ALMAND, B.S., M. D.,  
Atlanta, Ga.

#### **Prophylaxis**

Every clinical and also each cultural case of diphtheria must be isolated. All contact cases should be isolated, two successive cultures, twenty-four hours apart, of the nose and throat being necessary for dismissal. Children under fifteen years of age who have been contacts should receive an immunizing dose of antitoxin. All suspect cases should be isolated and should be held isolated until negative cultures have been obtained or a negative Schick reaction is found to be present.

Active immunity has been shown to be secured by the use of the toxin-antitoxin mixture. Behring was the first to advocate and use this method of producing active immunity toward diphtheria. Park, Williams and Zinnger have made extensive study and application of diphtheria immunization, and the results have been very gratifying. The individual is first subjected to the Schick test, and, if positive, then the toxin-antitoxin mixture is administered. Park and Williams, in a series of some 4000 cases, found the following: 20 to 30 per cent. showed immunity at the end of three weeks; 50 per cent. at the end of four weeks; 70 to 80 per cent. at the end of six weeks, and 85 to 90 per cent. at the end of twelve weeks. Active immunity was found to be present three years afterwards. They are of the opinion that these cases, when followed up, will show this immunity to remain months or years longer.

The production of such an active immunity is a great aid in preventing this disease, which is so prevalent during the years when the young child is so easily attacked and frequently succumbs as the result of diphtheritic infection.

#### **Symptoms.**

*Initial Symptoms*—Usually there are more or less anorexia, slight temperature, mild head-

ache, nausea or vomiting. In the more severe types, we find temperature ranging from 100° F. to 105° F. or more. The pulse is rapid and not of good volume. The skin is hot, flushed and may be wet from excessive perspiration. Respiration usually shows slight increase in rate. In the malignant or commonly called "septic" cases there are, in addition to marked toxemia, a high temperature for the first few days, anorexia, nausea, and a dark vomitus (frequently spoken of as "coffee ground" type). The patient lies in a semi-comatose state, or may be very restless, and even delirious. The cervical glands are swollen and give rise to what is spoken of as the "horse collar" seen in septic cases of diphtheria. The glands are fairly firm and tender on pressure.

The heart sounds are not very distinct. The apex impulse may or may not be slightly displaced. There may or may not be heard a faint systolic murmur, which is usually functional. More or less myocarditis is present in the majority of these cases.

*Membrane*—One may find a patch of gray-white membrane, or a more extensive involvement, on one or both tonsils, or covering the tonsils, uvula and even encroaching upon the pharynx and hard and soft palate. There may be a heavy membrane on the dorsal surface of the tongue. In the malignant cases we find the extensive distribution of membrane. Here we may find membrane filling the naso-pharynx and nares, and sometimes situated upon the tongue or gums, with a sloughing, bleeding surface. The membrane is thick, grayish-brown or blackened in color. And it is usually of several days' duration, the patient having received no treatment or improper local treatment. Such cases, followed up to the post-mortem table have shown membrane to be deposited upon the lumen of the trachea and even extending down to the smallest bronchioles.

Nasal hemorrhages are frequently difficult to control. Oedema of the glottis and epiglottitis frequently is seen in these cases and makes them more alarming.

*Symptoms of Laryngeal Diphtheria.*—In this type the onset is usually gradual. The child may appear fretful; the voice becomes hoarse and a croupy cough is noticed. The temperature appears and respirations become more rapid than normal. As time passes, we soon have



that typical picture of beginning laryngeal involvement. There develops a stridulous respiration; inspiration and expiration become eroupy, and aphonia makes its appearance. The child becomes more and more restless, and cyanosis begins to show. These symptoms are made more vivid as time passes, and finally the child shows marked cyanosis and struggles for air. The supra and infra-clavicular spaces, the sternum and epigastrium show recession on each inspiration. Respiration becomes very rapid and shallow; frequently only the upper chest shows respiratory movements. The heart sounds are very rapid and distant and irregular. Frequently the pulse fades away on each inspiration. The body is often covered with a cold, clammy perspiration, and the child lies about in bed.

*Treatment of Ordinary Tonsillar and Nasal Types.*—In these types of cases the only treatment is the administration of antitoxin, in a single dose, sufficiently large enough to take care of the amount of involvement. Put patient to bed. Give liquid diet until temperature returns to normal, which usually occurs on the second or third day. No treatment other than antitoxin and laxatives is usually required. Treat symptoms that arise. Tonics, later on, are usually beneficial.

*Treatment of the Malignant or Septic Cases.* Here we have more extensive involvement and a severe condition to deal with. Put patients to bed and give large doses of antitoxin. It is best to give antitoxin intravenously if possible. Give sedatives to keep patient quiet. Avoid opiates if possible. Stimulate the heart only when it is deemed necessary and then use caution and do not over-stimulate the already weakened and overburdened heart muscle. Use Spirits of Frumenti, Camphor in Oil, Caffeine and Soda-Benzozate. One must bear in mind the severe toxemia and, for this reason, force fluids. Give fluids per mouth, subcutaneously and by hypodermoclysis. Keep bowels open and push alkaline fluids. Control temperature by tepid sponging, warm water with addition of alcohol.

*Membrane.*—The best treatment is to let the membrane alone, unless a piece of membrane should become detached and interfere with respiration or deglutition. If this occurs, then remove this. Keep mouth clean by swabbing

with soft gauze sponges or cotton sponges, but use no force, because you do not want to break membrane and possibly stimulate bleeding from denuded surfaces.

*Glands.*—The use of cold or hot applications is usually sufficient. Cold seems to be preferred by the majority of patients. If glands suppurate, free incision and drainage are required. As a rule, the glands subside, without suppurating.

*Treatment of Laryngeal Cases.*—There are a great many cases which will improve so that intubation does not become necessary. You must know these cases and examine each one thoroughly and determine just what is the best policy, in each and every case. In those cases which, after examination, you decide to attempt to tide the case along and not intubate, you must watch carefully for a few hours. Give antitoxin, and put to bed. Give small dose of morphine with atropine; mild stimulation if deemed necessary; hot poultices constantly to the neck, and steam inhalations. Watch pulse and respirations. With this treatment, many of these cases can be tided over for a few hours; and the acute symptoms slowly disappear and child obtains relief and goes into a restful sleep, awaking with symptoms of obstruction clearing.

In those cases where there is marked cyanosis and practically no air is reaching the base of either lung and the pulse is fading away on each inspiration, do not attempt to tide over for a few hours. Intubate this case immediately, and then give your antitoxin. By intubating you relieve the cyanosis, you give the child a chance to get some needed oxygen into its blood stream and you remove the heavy load that is taxing the heart. Intubate them, give them antitoxin and put to bed. Frequent minute doses of diluted whiskey are of value in assisting the child to clear the tube. There is nothing better. Camphor in Oil is the best stimulant, when stimulation is desired. Digi-puratum is also of value when heart needs support.

It is never the best policy to permit a patient to struggle and fight for air. More work and damage to the heart muscle is the result. Do not allow this struggle to continue, but cut it short and intubate. Frequently the tube will become blocked from the membrane, which is

pushed ahead of the tip of the tube. Extube at once and re-intubate with the same size tube. If no relief comes from this procedure, remove the tube and introduce a size or two sizes larger tube. Frequently this will overcome the obstruction, the tip of the tube reaching beyond the limits of membranous deposit. When no relief is obtained by use of size larger tube, the next step is that of tracheotomy, but only when intubation fails in its purpose.

Use caution in the administration of opiates in these cases. The majority of intubation cases will do better without opiates. Substitute some other sedative. Atropine is valuable for excessive mucus collection in larynx and bronchi. Keep bowels open by repeated doses of some laxative. Remove the tube after four to six days. As a rule it is not necessary to re-introduce the tube. The tube is frequently coughed up, and a tube cast follows the expulsion of the tube. Sometimes the tube will block; and on extubation, a cough will take place and a tube cast or large piece of membrane will be coughed up, which relieves the obstruction. A few cases require two, three or more extubations and intubations before they are able to get along without the tube. Chronic tube cases occur also, in which the patient cannot go without the tube, even for a few seconds. These cases can be treated by using a dilating tube, gradually using a tube of a larger size on each change of the tube, which should be done every seven to ten days. Some cases, after dilating the larynx for a few weeks are able to do without the tube. Others become chronic, in which cases, surgical treatment is the only apparent hope for complete recovery.

### Resume.

Do not hesitate in giving antitoxin. It is best to give more than required than to have to repeat dosage. Size up each case and give adequate number of units, at a single dose. In the malignant and laryngeal cases the antitoxin should be given intravenously if possible.

Be careful in the administration of opiates and in overstimulating an already severely taxed heart muscle.

Do not intubate those cases which can be tidied over and intubation prevented.

Never postpone intubation when the pulse is fading and color becoming cyanotic, with no respiratory sounds audible at the base of the

lungs.

Never use force in intubating. Remember your landmarks and technic as to position of parts manipulated. The tissues are soft and easily injured. Perforation or false passage is usually the result of force in introducing the tube, excitement and hurry, and should never occur. If marked resistance is found then do not attempt to force the tube, for the tube is more than likely not in proper place or position. A careful operator rarely produces a false passage, for he knows when and where not to use force when intubating.

### DISCUSSION DR. C. A. ALMAND'S PAPER.

DR. W. A. MULHERIN: Dr. Almand's paper covers a big, broad and important field in medicine, and he has handled his subject well. To make a positive diagnosis of laryngeal diphtheria is most difficult, when no membrane shows in the pharynx. To differentiate from catarrhal laryngitis is, at times, most difficult, and, I will say, almost impossible when no membranes can be detected in the patient's throat.

In such cases I believe it highly advisable to treat the child for laryngeal diphtheria, by giving 20,000 units of antidiphtheritic antitoxin, until we can make sure that the case is not one of diphtheria. If such line of procedure is not followed, an error in diagnosis may cause the patient his, or her, life.

Another point of interest, in diagnosis, that should be stressed, is that the clinical picture, in diphtheria, is of more value than the laboratory findings. I say this with no desire of disparagement, but I have at times found a clinical picture of diphtheria, with negative reports from the laboratory. In such cases I think it well to be governed by the clinical picture.

As regards prophylaxis, we all know that when a case of diphtheria exists in a family where there are other children, 1,000 units given to the other children will protect them for some three to six weeks. Better prophylaxis, however, will be obtained when we all adopt the plan of using the toxin-antitoxin for prolonged and probably permanent immunization.

Dr. Park, of New York Board of Health, has recently reported some 100, or more, cases that he found reacted to Schick's test, thereby showing their susceptibility to diphtheria infection. He gave to these children the toxin-antitoxin, and three and a half years afterwards checked them again, with Schick's test, and found that they still possessed immunization against diphtheria infection. The toxin-antitoxin immunization has come, I believe, to stay, and when it is adopted and used generally will, in my opinion, make diphtheria as rare a disease as smallpox is today. I believe it is time for the various Boards of Health to take up this important subject.

As regards treatment, I am a strong advocate of giving anti-diphtheritic antitoxins generously, in one single dose. I look upon the administration of antitoxin very much as I would extinguishing a small fire. It is wiser to pour a bucketful of water upon a beginning fire, and thereby extinguish it, rather than to endeavor to put it out by pitching several dippers full on it.

The mere fact that a physician has to give a child a second dose of antitoxin, is acknowledgment that his judgment was in error. One single large dose is the best policy, as absorption from the subcutaneous tissues is not complete for some two or three days, and by dividing the dose he is losing valuable time. In severe cases it is highly advisable to give antitoxin



intravenously, as response is quicker, and the effect is about thirty times as effective as when given subcutaneously. I feel quite convinced that if an earlier diagnosis was made in laryngeal diphtheria cases, and antitoxin used in 20,000 unit doses, or given intravenously, there would be less need, and fewer cases, for intubation.

## POSTURE IN THE PUERPERIUM.

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Athens, Georgia.

The following observations are made with no claim to originality or priority; they have been presented and used more or less completely by a great many men for many years. to the same end: the excuse for their repetition lies in the large number of women in whom childbirth or miscarriage is followed all too frequently by genital displacement.

We have many corrective operations for malposition—and the more firmly one of them holds the uterus up, the more trouble it is apt to give in case of subsequent pregnancy; the operator must too often do an operative correction which may stand up and may not, or stifle his conscience, if not his sense of medical ethics in doing an operation which will certainly deprive the woman of the privilege of ever in the future giving birth to a child. We are inclined to stress the cure and neglect the prevention of this deformity.

We examine many women who date a possibly slight ailment to the last pregnancy—and on discovery of a first or second degree retroversion, they say, "Why, my doctor was so careful of me, after the baby came he kept me flat on my back for two weeks—or ten days—or three weeks."

After the termination of a full term pregnancy or a miscarriage in the later months, it would seem possible to do much to insure the return of the uterus to its normal position in the pelvis. Pregnancy furnishes a fresh start for the female pelvic organs, they have all taken on a new function temporarily, or rather, they have seen "active service." They have enlarged and increased their blood supply enormously: then after delivery they return to almost their usual size and condition; and too often to malposition, due directly to constant faulty position of the woman in bed.

As the uterus grows during pregnancy its

axis comes to lie more and more in the vertical line of the body and the true ligamentous supports stretch and hypertrophy enormously: then after delivery the uterus, being a relatively hollow organ, diminishes in size more rapidly than its supports.

This allows it an unusual degree of motility, its supports are relaxed, especially the round ligaments, and if the woman is in the dorsal position the constant tendency of the large, soft, heavy, uterus is to fall as far backward in the abdomen as possible. As the law of gravitation is operative in gynecology and obstetrics the constant tendency is for the uterus to assume a low level, and the intestines work down in the utero-vesical pouch. After a variable number of days the uterus will diminish in size enough that the fundus can pass the promontory of the sacrum and drop still farther back into the hollow of the sacrum—the round ligaments cannot pull and maintain it forward in normal position so they accept the situation, and we have a new, ready-made retroversion for the patient when she finally assumes the upright posture.

Here a vicious circle begins to work: the constant erect posture allows the weight of other viscera to hold the uterus in retroversion by pressure on its anterior surface in the utero-vesical pouch; the round ligaments are under added tension and they elongate, the utero-vesical ligaments, being peritoneal, can exert very little corrective traction: and the uterus remains heavy, soft, vascular and sub-involut, because its afferent blood supply through relatively thick walled arteries in the broad ligaments is not much inhibited, while the malposition does obstruct the venous return of blood, the venous pressure being low and the vein walls thin and liable to kink. If the damage is increased by the further descent of the uterus or the perineum has been injured and not repaired, the subinvolution increases the weight, and the weight and malposition maintain subinvolution of the organ.

In a moderate number of cases of both full term pregnancy and miscarriage the patient has been allowed to assume the dorsal position for only a few minutes each day (for rest and evacuation of the bowels and bladder) from the day of the delivery, the remainder of the first eight days on either side or on the stom-



ach. None of these patients has shown any tendency to retroversion or subinvolution, and in several women who had a mild degree retroversion, without adhesion of the uterus, a pregnancy, followed on termination by the described constant lateral or ventral position for the first eight days, left no sign of retroversion or subinvolution on subsequent examination.

#### CONCLUSION.

1. The constantly maintained dorsal posture following either full term pregnancy or miscarriage, is responsible for many cases of retroversion and subinvolution of the uterus.

2. The lateral or ventral position during the first eight days following accouchment gives the pelvic organs the most favorable opportunity to return to normal position.

3. Certain non-adherent mild degree retroversions may be favorably affected or remedied by avoidance of the dorsal position following delivery.

Southern Mutual Building.

#### **FRACTURES OF THE LOWER END OF THE HUMERUS INVOLVING THE ELBOW JOINT.\***

O. L. MILLER, M.D.,  
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Fortunately, the greater number of fractures of the lower end of the humerus occur in periods of life when the prospect of preventing future deformity and diminution of function is most promising; that is, during childhood and adolescence.

I think we can safely say that all fractures of the lower end of the humerus involve the elbow joint. Even though the solution of bone substance does not quite pass into the joint, the trauma to the joint structures may cause practically as much reaction. When a fracture occurs at this site, whether the reduction be easy or difficult, union, as a rule, takes place. Nature takes care of that, but joint motion nature takes very little interest in returning. That is the responsibility of the physician, and is one of the features of the treatment of this lesion I wish especially to emphasize.

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

Clinically, fractures of the lower end of the humerus are (1) supracondylar, (2) diacondylar, and (3) condylar. There are more elaborate classifications, but this is sufficient. It would be impossible in so short a paper to review in detail the more elaborate classifications, diagnosis, symptomatology, prognosis and treatment of this injury, and I have, therefore, confined myself to the one feature of treatment of simple fractures—the type most often encountered.

I will not take up your time going into the anatomy and physiology of the elbow joint. A knowledge of this, however, is necessary for the successful treatment of elbow fractures. Its anatomical mechanics determine the positions elected for “putting up” the fracture, and the physiology of the joint is the thing hoped for and worked for in “taking them down.”

Clinically, diagnoses can be made of fractures in this vicinity, but I would not encourage the practice. For the most intelligent treatment X-rays should always be made. If you are at all uncertain in an elbow injury as to whether you have a fracture or not, make yourself safe and comfortable by having an anterior-posterior and lateral X-ray. It may be a little inconvenient at times, but pays in the long run—especially if you have to explain a prolonged or unsatisfactory convalescence from an injury which you at first minimized.

Compound fractures are in a class by themselves, and deserve the most intelligent care and oversight.

Occasionally capitellar, trochlear and condylar fractures, when the displacement is exaggerated and attempts to reduce by closed methods are unsuccessful, have to be attacked by open operation. Closed reduction should be skillfully tried, and, even though the X-ray should tempt you to institute operative interference, remember that the chances are usually better for a functionally good joint when the capsule is not opened. Should your judgment tell you on open operation is wisest, it should be done early, and if either condyle is badly displaced or the capitellum dislodged from its mooring, they can be entirely removed, and still a very good joint be obtained.

The most common fracture one has to deal

with is the one illustrated here. You are familiar with the type of deformity as is shown. Roughly, we see the site of fracture sketched in and about the average displacement. As was stated at first, the crack may enter the joint or may not quite do so. In either case the problem is much the same. I have found the following scheme of handling these fractures very easy and effective:

The patient is anesthetized and on the table in the usual way. An X-ray has been made—you know where you are. There is usually muscle spasm and jamming of the fragments. Grasp the condyles firmly with one hand. Have some one steady the patient's shoulder and you start steady direct traction. Keep this up for several minutes until you overcome the muscle spasm, then, with your other thumb on the upper fragment, begin putting pressure on the end of the bone and let an assistant carry the forearm into complete flexion with the hand facing directly toward the shoulder joint. With this movement the fragments should skid into good position. Being reduced, hold the arm flexed, the triceps and lateral ligaments of the elbow joint act as internal splints to maintain the position. All that is necessary now is to use some form of safe, simple fixation that will keep the position. Usually the flexion is at an angle of between 20 and 30 degrees, depending upon the amount of swelling or obesity around the joint. One must guard not to obliterate the radial pulse or impair in any way the forearm circulation.

This simple plaster splint illustrated here has been found to be easily obtainable, easily made, applied and removed. While some assistant holds the arm in flexion, estimate the length of your splint from over the shoulder to the fingers, and on a table make up the splint by running your plaster roll backward and forward on itself. (A very light splint can be made from good plaster.) Mold it on the bare arm as shown, let it set, slip it off, and pad it lightly with sheet wadding or cotton. Slip it back on and reinforce it with another plaster bandage around the elbow angle. In this procedure you can maintain your reduction and at any time inspect the whole anterior arm, without disturbing your posi-



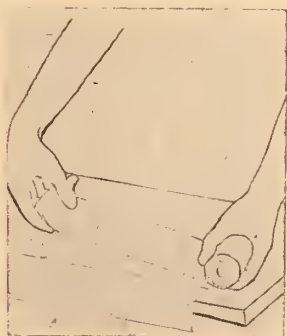
X-ray of supra-condylar fracture



Beginning reduction



Reduction complete



Making plaster paris splint



Plaster Paris splint applied to the elbow.



Taking off the splint to start motion.



Beginning passive motion.

tion. You may use common bandage to secure the upper arm and forearm or carefully applied circular plaster of Paris bandage. One thing take pains to do: Keep the hand facing the shoulder, or your lower humerus fragment will rotate and block supination on recovery.

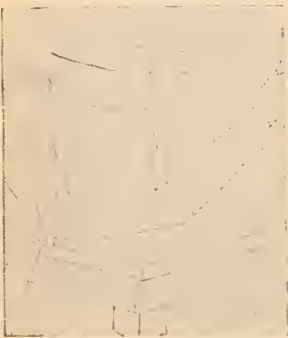
In the after treatment of these cases the motion in the joint should be started early. In children up to ten and twelve years old, I start motion in eight days; twelve to sixteen, in ten days. Of course, at first very gently and carefully, but at least rub the synovial surface together a few degrees.

The use of this splint is ideal for after care. As shown here, you remove your fixation bandage, grasp the broken member by the fingers and slide the splint carefully away; then, grasping the lower end of the humerus firmly in your other hand, you are able to keep it perfectly comfortable and safe while you carry the arm slowly forward and backward a few easy movements. Then drop it back in the splint, reapply your bandage and repeat the next day, each time increasing

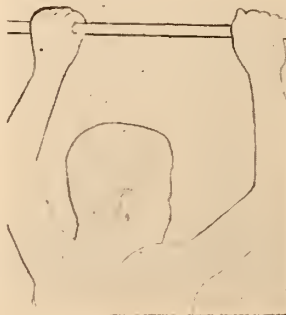
your range of motion and length of time. Soon do this exercise twice a day. In fourteen days show the father or mother how to do it and have them help you twice a day at home. Bathing the joint in hot water relaxes it, and makes the motion easier. Even in the bad cases by the sixteenth or eighteenth day you are able to entirely discard the splint for the day and allow the patient to sleep in it only, and in a day or two discard it entirely. Now you can whip the joint along fast, using all your persuasion, ingenuity and family help, for your easiest ground will be gained in the early days.

It is the residual limitation in flexion and extension which is hard to overcome, but which can be overcome if you drive hard and persistently. Sometimes a small deposit of callous in the upper portion of the coronoid fossa blocks the coronoid process in flexion, but while it is soft, if you keep battering away at it, much of the blocking can be overcome.

In flexion, the child should touch his mouth, ears, top of head, shoulder, and the final at-



Controlling the upper arm while giving passive motion to the elbow.



Working out limitation and extension.



Degree of flexion desired.



tainment is to touch the prominence of the seventh cervical vertebra or tip of shoulder on the same side.

The residual extension may take six or seven weeks to work out. Placing the upper arm firmly on a table, as shown here, and using the lower arm as a lever, is a very good method of working out limitation in extension. The trapeze, as shown here, should be diligently used to help obtain full extension. Carrying weights—a bucket of water, or sand is helpful. Following some such line of care as this should in four to six weeks work the average elbow out, when crippled by fracture of the lower end of the humerus.

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### REPORT OF FOUR CASES OF MENINGO-ENCEPHALO-MYELITIS.

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*Case 1.*—White woman, single, age 47; seen May 13, 1919, with Dr. R. M. Goss.

*Previous History.*—This patient has never had any serious sickness. She has been subject to periodic headaches all of her adult life. She has not had influenza in the past year, although it was prevalent in her home town and cases occurred in her family.

Present illness began two months ago with headache and facial neuralgia. Fever came on in a few days, and was accompanied by a lethargy. Paralysis of the left facial nerve developed. There was some fever all during the illness and a lethargy from which the patient could be roused to answer questions. There was a leucopenia. Widal tests, blood cultures and blood smears were all negative. The urine was normal. The blood Wassermann was negative. There was a gradual improvement in all the symptoms except the paralysis of the facial nerve, and the patient came from her home on the coast to this city to convalesce.

Six weeks after the onset the patient had a violent headache, which was followed in about an hour by several general convulsions, and she went into a coma from which she could not be roused. At this time the left side of

the face was paralyzed. There was an external strabismus of the right eye. The pupils were equal, normal in size, but did not react to light. The eye grounds were normal. A bloody fluid under some increase of pressure was obtained on lumbar puncture. The coma increased and the patient died, the illness having lasted two months.

*Comment.*—The leucopenia, the low grade fever and the mental dullness in the beginning were suggestive of typhoid, but the negative Widal reactions and blood cultures ruled it out, and later in the course of the disease the paralysis of the facial nerve, the typical lethargy, and finally the convulsions, paralysis of an extrinsic eye muscle and the bloody spinal fluid under pressure indicated an inflammation of the central nervous system and a diagnosis of encephalitis lethargica was made.

*Case 2.*—White man, single, age 23; seen March 25, 1920, with Dr. Fullilove.

*Previous History.*—This man has not had influenza during the past year, but he has been exposed to it. Several weeks before this he had a crop of boils on the back of his neck into which a physician injected a vaccine hypodermically. This condition had disappeared, however, before the onset of the present illness, which began with great restlessness and insomnia. After several days, during which he experienced no relief from these symptoms, he began to have choreiform movements of his face, arms and legs. A few days later the abdominal muscles were also involved in these movements. There were pains in the head, arms and legs.

*Examination.*—The patient is a well-developed young man, the muscles of whose face, trunk and limbs are in almost constant motion. He is rational but apathetic to his surroundings and somewhat irritable. His temperature is 101 F. There is a ptosis of both upper eyelids. The pupils are normal in size and equal; they react sluggishly to light. The eye grounds are normal. The deep reflexes are all increased. There is a moderate leucocytosis of 9000. The spinal fluid, under slightly increased pressure, is not absolutely clear, globulins increased, Wassermann negative, cell count 110, all small mononuclears,

smears and cultures negative. The blood Wassermann is also negative.

There was some improvement in the headache and the choreiform movements following the lumbar puncture, and after a day or so it was repeated, with practically the same findings.

During the second week the insomnia improved and the twitchings nearly ceased. Fever of a moderate degree persisted for about six weeks. After two months in bed he improved enough to get out.

At the end of four months this man is going about, but the choreiform movements reappear if he becomes excited or fatigued, and he sleeps poorly. He cannot write because of the involuntary twitching of his arm and hand.

*Comment.*—It was thought at first that this patient had a violent chorea, but this idea was abandoned during the progress of the case. The paralysis of the extrinsic eye muscles, the spinal fluid findings, the apathy and the choreiform movements all pointed to an infection of the central nervous system, and encephalitis was the final diagnosis. It would be a mistake to call it encephalitis lethargica because he had insomnia. The persistent choreiform movements bring to mind Dr. Barker's suggestion that some of these patients may be left with a disseminated sclerosis.

*Case 3.*—White boy, age 5 years; seen with Drs. Fullilove and Hodge, April 25, 1920.

*Previous History.*—For the last two years he has had occasional vomiting spells, which were cleared up by purgation and diet. Four months ago he had influenza.

Present illness began ten days ago with vomiting and slight fever. After a day or so the parents noticed that he could not move his left eye to the right, and that he drooled. Several days after this he could not use his right arm well, and still later his right leg. He began to get apathetic. The paresis of the right arm and leg increased gradually.

*Examination.*—The patient is a well-developed boy, somewhat apathetic. His pulse is 60. The eye grounds are normal. The left external rectus is paralyzed. There is also a paralysis of the right side of the face, and a flaccid paralysis of the right arm and leg.

The knee jerks are absent. The blood count showed 8,000 leucocytes. The spinal fluid was not turbid, and not quite clear, was under a slight increase of pressure, the globulins increased, cell count 90, all small mononuclears, smears and cultures negative, Wassermann negative.

There was a little fever all during the illness, the apathy changed to a lethargy and finally into a coma, in which the child died four months after the onset.

*Comment.*—Were we dealing with an infantile paralysis or an encephalitis? The spinal puncture was of no help. It is true the cell count was a little higher than is usually found in encephalitis, but it was a count that might occur in either disease. The involvement of the external eye muscle, the apathy and the slow march of the paresis from one muscle group to another, instead of a simultaneous involvement of them, led us to think we were confronted with an encephalo-myelitis of the prevalent post-influenzal type rather than Heine-Medin disease. There were no other cases of poliomyelitis in this community. Our conclusion was justified by the long drawn out lethargy, which finally deepened into a coma, and the lack of the atrophies and contractures one would expect after a poliomyelitis. Nevertheless, it would have been interesting to have done an autopsy and looked for the lesions of Strumpell's poliomyelo-encephalitis and to have seen the condition of the ganglion cells in the anterior horns of the cord.

*Case 4.*—White man, age 49, married; seen May 28, 1920, with Drs. Daniel, Gohlson, Wheelchel and Crenshaw.

*Previous History.*—He has never been seriously sick. He denies syphilis. About six weeks ago he had his teeth extracted because they were in bad condition, but the gums had healed some time before the onset of this condition.

*Present Illness* began with a headache, which lasted one week, at the end of which time it suddenly became violent at the dinner table, so that he had to take to his bed and remain there. He vomited several times.

*Examination.*—The patient was a tall, slender man, entirely rational, with a pulse



of 68, temperature 100 F., and systolic blood pressure of 150. The urine was normal. Dr. Wheelchel had found a leucopenia. The pupils were equal, but did not react to light. Kernig and Babinski were both positive. The spinal fluid was under considerable pressure and was bloody. Smears of this fluid showed no organisms, and cultures were negative.

There was improvement, especially in the headache, after this partial drainage of the spinal fluid, but on the third day the patient had a convulsion and lapsed into unconsciousness. Lumbar punctures gave a bloody fluid which was no longer under increased pressure. Smears showed no organisms. The white blood cells mounted to 19480, mostly polymorphonuclears. The Kernig and Babinski became more marked and orthotonus developed. On account of the meningitic symptoms and in spite of the fact that the meningococcus was absent from the smears and cultures of the cerebro-spinal fluid, antitoxin was given, both intravenously and intraspinally, but with no effect. The patient died in coma ten days after the onset of the headache.

*Comment.*—This was undoubtedly a case of acute meningitis, but the absence of the meningococcus and all other organisms, the bloody character of the spinal fluid and the failure to respond to the antitoxin led us to conclude that this was probably a meningeal type of the prevalent hemorrhagic non-suppurative inflammations of the central nervous system, which have more commonly manifested themselves as an encephalitis.

This series includes three males and one female. There were three adults and one child. All were white people. The end results were three deaths and one partial recovery. No other cases occurred in the patients' families, although no precautions were taken to prevent the spread of contagion.

Only one of them had had influenza. The others had gone through the epidemics of 1918-20 and had undoubtedly been exposed.

One case had had a furunculosis and another had had his decayed teeth extracted a short time previous to their illnesses, but there seemed to be no connection between the conditions in either instance.

Two of them had a bloody spinal fluid. The other two had a fluid that was not turbid, but was not "rock spring" clear, and the cell count was higher than is usually reported. The cells were all small mononuclears. In two cases the lumbar punctures gave relief, especially from headache; in the other two no effect was seen.

Two of them had a leucopenia. This occurred in the meningitis case, but changed to a leucocytosis as the meningeal symptoms became more pronounced. The other two had a moderate leucocytosis.

No autopsies were obtained.

## HISTORY TAKING IN INFANTS AND CHILDREN.\*

WILLIAM W. ANDERSON, A.B., M.D.,  
Associate in Pediatrics, Emory University;  
Physician in Charge Out-Patient Department of Pediatrics.

Older children may be able to tell their story and describe their symptoms, but their powers of description often are very deficient and their statements misleading. Very young children are not able to answer any questions, and with children in the first years of life the entire history of the case must be obtained from the parent, nurse or attendant. To the pediatricist especially practiced in observing and interpreting objective symptoms this is a distinct advantage. The inability to tell how he feels, the absence of long accounts of sufferings, often exaggerated by adults and amenable to auto-suggestion, which may even border on hypochondriasis, outweighs the common expression heard, that it must be hard to deal with children, since they cannot tell how they feel.

Since nearly all the information concerning children is gotten second-hand from the parent, the physician should be trained to rely more on objective symptoms, frequently as observed and reported by the mother, whose powers of observation and description are not trained, subjective symptoms playing a com-

\*Lecture to Junior Medical Students, Emory University, Atlanta.



paratively smaller, although significant, part in the symptomatology of early childhood. This would seem to underestimate the importance of a careful history. This is not the case. Even though parts of the mother's report is taken *cum grano salis* (and other portions equally as well developed and expanded by careful questioning), a well-developed history must always be the first step toward accurate diagnosis and scientific treatment.

Frequently it is well to let the mother first tell her own story without interruption, and then develop and expand her report with tactful questioning. It would be very disconcerting to a mother, who is earnestly bent on describing the illness of her child, to be suddenly asked the cause of death of her other children. Notes may be jotted down as she talks, and later other important points brought out. Usually a few moments of quiet talk, or at times of quiet listening, will not only gain the confidence of both the mother and the child, but will save time in developing the subsequent history, and will not give out the impression that the physician is proceeding simply by routine, and is not interested in the mother's story. This may also be true of the "Present Illness," which may be recorded next after the "Complaint," or taken on a separate pad and later placed in the proper order of the history. Naturally a mother is in much better humor to recite the present illness of her child, and only tells pertinent family tendencies when the physician convinces her by his attitude that these bear directly on the condition of her child.

For many reasons it is well that the child be in the room at the time the history is obtained. He not only becomes accustomed to his new surroundings and the examiner's voice, but certain portions of the mother's story may be confirmed, while other important points in the history may be entirely overlooked at this time if the child be absent.

Certain personal data should be noted, as the name of the patient, his age and birthday. By recording the birthday of the child, his age may be accurately computed at subsequent visits, with reference to diet, dosage, development, etc., and the confidence of the mother thus increased without further ques-

tioning. Also the names of the mother and father, or guardian, with their address, street number and telephone number, should be noted and corrected on the history sheet from time to time as these change.

In determining the condition of which the mother or child complains, their own words should be used and placed in quotation marks. If there is more than one complaint, these should be noted in the same manner, in order, 1.—, 2.—, 3.—. Such complaints, however, should be briefly but concisely expressed, so as to serve as a guide in developing the remaining history.

Under "Family History" should be noted always the age and condition, if living, of the mother and father; if dead, the age at the time of death and the cause of death; the number of pregnancies of the mother, in order, with the age and condition of the living children, and the age and cause of death of those dead, recording miscarriages and stillbirths in order, as follows:

- "1.—Girl (or name), 4 years of age, living and well;
- 2.—Miscarriage 2 mos.;
- 3.—Patient;" etc.

Facts concerning other members of the family, as aunts, uncles, grandparents, also should be developed, particularly in reference to certain family tendencies toward disease, as tuberculosis, hemophilia, syphilis, insanity, etc. It is important to know if the patient has been exposed to any other contagious diseases, not only as developed in the family history, but also in the child's neighborhood. It is advisable to gain as thoroughly as possible an insight into the surroundings in which the child lives.

The patient's past history should begin with birth. One should inquire whether the child was premature or born at term, noting the character of labor, whether normal or instrumental, tedious or complicated; the condition and vigor of the child at birth, whether he cried spontaneously or had to be resuscitated, and whether he took the breast promptly. Next the diseases of early infancy, as to whether there had been any peeling of the skin, particularly the palms and soles, snuffles, nose bleed, hemorrhages, convulsions, pa-

ralysis, ophthalmia, etc.

A careful history of feeding should include the time, interval and character of nursings, beginning at the birth of the child, as to whether he was nursed at regular intervals, if satisfied, how long at the breast, and if there had been any trouble with the mother's breasts or nipples. Then the time and character of partial, or supplementary, feeding, noting the exact formulæ and hours in each case, and relations to nursing periods, as to whether the child seemed satisfied in each case, the general gain in weight, character and number of stools per day, vomiting or regurgitation, flatulence or colic, and the disposition of the child, whether he was good-natured, slept well, etc. The age and cause of weaning should be noted, the formulæ, hours, and other points as above, of the "artificial" feeding. After this an inquiry should be made as to the diet in subsequent years, first year, second year, third, etc., giving a list of the different foods offered, the number of feedings a day, particularly if the child eats a lot of sweets, eats in between meals, indulges in candy, soda water, coffee, ice cream, etc. If the story told by the mother suggests that the illness of the child is in any way concerned with nutrition, or if the problem presented is one of feeding, all the data concerning the diet history should be obtained in the minutest detail.

In recording such illnesses the child has had in its lifetime, prior to the first visit, it is well to make a specific statement as to the acute infectious diseases, as measles, scarlet fever, whooping cough, diphtheria, chickenpox, typhoid fever, pneumonia, influenza, etc. The dates of such diseases the child has had, with the age of the patient at the time, should be noted, with details as to severity, duration, complications, etc. Certain children have tendencies toward certain diseases, as respiratory, digestive and nervous disorders. In a like manner a record should be made of any other illness the child has had in its lifetime.

An inquiry should be made into the physical and mental development of the child, as to the age of teething, first tooth, if any abnormalities in teething, number of teeth at the present, at what age he first sat alone,

walked, talked; if in school, age of admission to the school, and progress with his studies, if interested in his work, as to whether he has been successfully promoted each year.

A note should be made as to such surgery the child has had, with cause, age and dates of such operations, and methods of operation as far as possible, with subsequent recoveries.

In developing the "Present Illness" of the child, the character and date of onset should be noted, with details as to progress up until the present time; as to whether the child is getting better or worse; and, if the child has been ill for some time, the reason for seeking medical aid now. Objective symptoms should also be stated in full whenever they bear directly on the patient's illness. In the "Present Illness," as well as the rest of the history, try as far as possible to make a simple, connected, readable story, giving the sequence and order of each event as they occur in the child's life, without, however, sacrificing clearness and exactness as to detail.

Jan. 3, 1921.

W. A. H., Junior, 12 mos. old, born Jan. 7, 1920.

Father, Mr. W. A. H., 1360 E. Pine St. No telephone.

*Complaint.*—"Cries a whole lot, day and night, particularly after urinating; thinks he has kidney trouble; urine smells strong."

*Family History.*—Father living at home, 25 years of age, has "bronchial trouble" so bad that he is able to do very little work. Mother does not think he has pulmonary tuberculosis, although social service worker is of the opinion that he has.

Mother living and well, 24 years of age.

Only child.

Otherwise negative. No further suspicion of tuberculosis.

*Social Condition.*—Mother works at ——— insurance office from 9 A. M. until 5 P. M., thereby "practically supporting her family." She goes home at lunch time to nurse her baby, and pays her landlady and a young negro girl to look after him during her absence at work.

*Past History.*—Birth term normal, no instrumentation; weight 10½ lbs. Early infancy negative.



*Feeding.*—Up until 4 mos. of age mother nursed her child about every 2 hours, at irregular intervals, then from 4 mos. of age until about 8 mos. of age about every 3 hours, day and night. Since 9 mos. of age she has nursed him at 8 A. M., 2 P. M., 5 P. M. and once or twice at night, "when he wakes up and cries." At these times she takes him in her bed. Since 9 mos. of age he has also gotten whole cows' milk at irregular intervals, "when he seemed hungry," and cooked cereal once or twice a day. His digestion has always been good, he has never had any diarrhea, vomiting, or other signs of gastro-intestinal upset, and seems satisfied usually with his diet.

*Previous Illnesses.*—He has never been ill before at any time, and has had none of the acute infectious diseases.

*Development.*—He cut his first tooth at 4 mos. of age, and has 4/2 teeth at present. He sat alone at 6 mos., and can stand alone at present, but cannot walk.

*Surgery.*—None.

*Present Illness.*—His mother says that he has always been more or less fretful at night, so that she has been in the habit of taking him in the bed with her and nursing him once or twice a night when he awakes and cries. During the past 3-4 days, however, he has been more fretful, has cried more than usual, and she notices that he cries particularly after urinating. She says that his wet diaper is strong, and smells of ammonia, and that he has been urinating more frequently recently than before, although she cannot tell accurately how many times a day he urinates. She is apprehensive of "kidney trouble."

*Physical Examination.*—Rectal temperature 99; pulse 100 per minute; respirations 24 per minute.

Weight, completely stripped, 20 pounds 2 ounces.

Length, 27 inches.

Circumference of head, 18 inches.

Circumference of chest, 17 $\frac{3}{4}$  inches.

Well developed, well nourished, good humor, good color.

*Skin.*—Negative. No eruptions.

*Glands.*—Negative.

*Head.*—Pupils equal, regular, react to

light. Ears negative. Slight thin mucoid nasal discharge. Both tonsils are visible, the right being moderately enlarged, uniform, not cypytic. The small vessels of the pharynx are engorged and stand out prominently.

*Chest.*—Lungs clear to percussion and auscultation fronts and backs.

*Heart.*—Negative.

*Abdomen.*—Negative.

*External Genitals.*—There is a well-marked phimosis with a small external opening about the size of a hatpin. The foreskin cannot be retracted and shows a moderate amount of inflammation on the inner aspect of the small opening. Testes normal.

*Buttocks.*—Negative.

*Extremities.*—Negative.

*Reflexes.*—Knee kicks, cremasteric, abdominal reflexes present, equal on the two sides.

*Urine.*—4-5 cc. urine wrung out of diaper at the time of this visit smells rather strongly of ammonia; neutral to litmus paper; albumin negative (heat and acetic); sugar negative (Fehlings); too small specimen for specific gravity; centrifuged specimen; occasional white blood cell, about 2-3 to low power field, and about an equal number of epithelial cells; no red blood cells; no casts.

*First Impression.*—Phymosis;

Regulation of feeding;

Slight acute rhino-pharyngitis;

Slightly enlarged and inflamed tonsils;

History of "Ammoniacal Diaper."

*Treatment.*—Circumcision;

Correction of diet;

Further studies of urine as indicated.

746 Peachtree street.

## REPORT OF A CASE OF APPENDICITIS DUE TO THE OXYURIS VERMICULARIS.

R. BRUCE PATRICK, A.B., M.D.,  
Waycross, Ga.

The oxyuris vermicularis is a cosmopolitan parasite inhabiting the human intestines, and has been known from remote antiquity. It is more prevalent in cities than in the country, and occurs equally in cold and warm re-



gions. It is found most abundant between the ages of two and twenty years, corresponding to a period in which appendicitis occurs most frequent.

Still was the first to observe the frequency with which the oxyuris inhabited the appendix. In a series of necropsies on children between the ages of two and twelve years he found that the oxyuris was present in 32 per cent. of the cases. In 25 out of the 38 cases in which the thread worm was present, the oxyuris was found in the appendix. In 6 of the 38 cases mentioned the appendix was the only habitat. The most significant point of his observations was the number of immature thread worms found in the appendix, which is diametrically opposite to the views held by Leukart and others, that the oxyuris vermicularis never multiplies in the intestines.

Riff observed that the appendix is the habitat of the oxyuris vermicularis and that this parasite is capable of producing all the epithelial lesions causing appendicitis. In 1911 he examined a series of 158 appendices obtained from patients ranging in age from two to seventy years and presenting all types of inflammation. He found that the oxyuris was present in 40 per cent. of the cases. In 1916 he examined another series of 63 appendices taken from children less than fifteen years old and found that the oxyuris was present in 76 per cent. of the appendices. In one appendix he found over 400 thread worms. He reached the conclusion that the majority of cases of appendicitis are due to parasites, and that the oxyuris is the principal agent.

On examining the American literature at my command and on finding so few cases reported, induced me to report this case, which occurred in my service at the Mary Street Hospital a few months ago.

#### Case Report.

*History.*—E. A., school girl, eleven years old, entered the hospital July 16, 1920, complaining of pain in the lower right abdomen. The family and past history were unimportant. The present illness began day before entrance, with sudden severe abdominal pain while attending Sabbath school. The pain

was so severe that she had to go home and go to bed. She was nauseated, but did not vomit. During the afternoon and evening the pain was of a colicky nature and the whole lower abdomen was sore. Toward night the pain began to localize in the lower right half of the abdomen. Bowels were constipated.

*Physical Examination.*—The patient was fairly well nourished and developed. The mucosæ was pale and the facial expression showed some evidence of pain. The clinical interest in the case was centered on the examination of the abdomen, which was symmetrical and slightly distended. The right rectus muscle was more rigid than the left. Tenderness was most marked in the lower right quadrant, especially over McBurney's point. The respiratory movements were limited to the upper abdomen. The flanks were hyperresonant on percussion. No tumor or masses were felt.

Temperature 101, pulse 100, respiration 24, on admission.

Clinical diagnosis of acute appendicitis was made and operation was decided on at once, on account of rising temperature and pulse rate.

*Operation.*—The abdomen was opened through a 3½-inch right para-rectus incision. There was no free fluid in the peritoneal cavity. The appendix was injected and its walls felt indurated. The meso-appendix was shortened by fairly well-organized adhesions. The appendix was removed in the usual manner. The cæcum, ascending and transverse colon were injected and its walls were thickened. The abdominal incision was closed in layers without drainage.

Macroscopical examination of the appendix disclosed a slight stricture near the proximal end, and on opening the appendix eight mature thread worms were found clumped together near the middle third. The walls of the appendix were thickened and scattered over the mucous membrane were numerous small punctate hemorrhages.

The first stool after operation was examined, and many eggs of the oxyuris were found. No thread worms were seen. From the vagina a greenish purulent discharge was

noted.

Convalescence was uneventful and the patient left the hospital on the fourteenth day.  
432 Bunn Building.

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## REPORT OF CASE OF PULMONARY THROMBOSIS.

JAMES J. CLARK, M.D.,

Röntgenologist Georgia Baptist Hospital, J.  
J. Gray Clinic and Grady Hosp.; In-  
structor in Röntgenology. Medical  
Department, Emory University.

History negative, except for present complaint. Three and one-half years ago noticed sore mouth, followed irritation of non-fitting dental plate. Gradually grew worse. Four months ago developed permanent sore on tongue. Glands under neck enlarged. Diagnosis epitheloma of tongue with metastasis in glands under jaw.

Operated with removal of all enlarged glands, including sub-maxillary, part of parotid, those beneath omo-hyoid, sternocleido mastoid, etc. Block dissection. External jugular vein opened under clavicle and unable to ligate. Hemorrhage controlled by packs. On third day temperature rose to 103 degrees, with irregular course. He showed definite pneumonic signs in left lung.

February 4, 1921, X-ray examination showed multiple small dense shadows well distributed throughout both lungs from apex to base, similar to small hypertrophied glands as often found associated with tuberculosis. These are sharply outlined and clear cut. In the mid portion of the left lung there is a definite pneumonic area, showing marked inflammation in this region.

*Diagnosis.*—Multiple Emboli of pulmonary artery in the lungs, due to breaking up of clot in jugular vein. Pneumonic area due to blocking of larger vessel with production of enfaret or a secondary pneumonic process.

Feb. 9, 1921, X-ray examination showed general increase in pneumonia in left lung, with elevation of the left diaphragm. Surrounding each area of thrombi, as previously reported, are small inflammatory areas, apparently due either to breaking up of thrombi, small enfaretions or localized pneumonic areas. The probabilities of this condition resulting in many small lung abscesses must be considered. Patient died.

WILLIAM P. GRAVES.

## THE GYNECOLOGIC SIGNIFICANCE OF APPENDICITIS IN EARLY LIFE.

Archives of Surgery, 1921, II, 2.

About fifteen or twenty years ago, surgical literature was filled with articles on the relationship that primary infections of the appendix have to pelvic inflammation in women. Many gynecologists considered the appendix responsible, while others stated that it had little or no bearing on the pelvic organs. In recent years very little has been written on the subject.

The author has encountered extensive adhesions in the pelves of women who had suffered from early appendicitis, with all possibility of gonorrheal or puerperal infection being excluded.

He describes the means of communication of infection and concludes that, whereas a primarily affected appendix may transmit its infectious process to the pelvis in three different ways, that is, by contact, gravity and through the agency of the subperitoneal cellular tissue, inflammations of the pelvic organs involve the appendix secondarily only by contact. The conclusion is reached more or less by reasoning, but substantiated by personal experience. He finds it necessary to protest against the teaching that non tuberculous inflammatory processes encountered in the pelvic organs are practically all due to gonorrhea or puerperal sepsis.

From an anatomic standpoint the conditions are less favorable in the young for a local walling off of an appendix abscess than in adult women.

Adhesions may be formed by the serous or serofibrinous exudate from a chronic ap-



pendix during its inflammatory periods. The adhesions remain, yet the appendix may return to a condition of approximate normality. The exudate may be so extensive as to cause very severe adhesions; probably involving all the pelvic organs. The adherent organs in a severe case are extremely difficult to separate, but there is not that stiffness and hardness seen in adhesive tuberculosis, nor the tissue destruction of an old gonorrheal process.

A serious consequence of appendicitis in early life with pelvic involvement is sterility. Theoretically, the operative procedure for a cure in such a case is good, but practically the outlook for a cure of the sterility has not been good in the author's experience. Recurrence of adhesions however, are not so prone to occur in these cases as in pelvic inflammation resulting from gonorrheal infection.

Much has been written regarding early appendicitis, as a causative factor in a later ectopic pregnancy. The author's experience causes him to give this serious consideration. He discusses also the relationship of early appendicitis to dysmenorrhea and states that it is a difficult and as yet an unsolved problem.

Appendicitis in childhood and young girlhood must be regarded not simply with reference to the diseased appendix itself, but to the serious harm which it may exert on the pelvic organs if left alone. Three illustrative cases are reported and it is quite clearly shown that early operation is indicated in children when there is any suspicious evidence of appendicular infection.

GREENE.

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## GEORGIA PUBLIC HEALTH ASSOCIATION.

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The Medical Department, University of Georgia, Augusta, Ga., announces the organization of the Georgia Public Health Association on March 4, 1921.

Hon. Robt. C. Ellis was elected president of the association. Mr. Ellis is prominent in public health affairs in this State and is well known as the author of the Ellis health law, which was adopted by the General Assembly in 1914. Dr. T. F. Abercrombie, Commis-

sioner of Health of Georgia, and Mr. Jas. P. Faulkner, executive secretary of the Raoul Foundation, were named vice presidents. Dr. R. A. Herring, professor of preventive medicine in the Medical Department of the University of Georgia, Augusta, was elected secretary-treasurer. Members of the executive committee at large are Mr. A. V. Wood, Brunswick, Ga.; Dr. J. H. Hammond, LaFayette, Ga., and Dr. Hugo Robinson, Albany, Ga.

The purpose of the association is to protect and promote public and personal health, to stimulate further interest and activity and to make the present public health activities of the greatest possible value and benefit to the State.

The association is intended to be comprehensive in membership. It is intended to include not only all persons actively engaged in public health work, but those directly or indirectly interested; to have a membership comprising citizens furthering public health as well as workers from each public health activity.

Such an association has long been needed in this State, in view of the active interest being taken in public health work in this State and the rapid advances being made in these activities.

Charter membership is open for a period of three months from date of organization.

Affiliation with the American Public Health Association will be effected as quickly as possible.

An active campaign for membership has been begun. Any person interested in public health, however, is invited to anticipate receipt of an invitation of membership by forwarding request for membership to the secretary, Dr. R. A. Herring, Medical Department, University of Georgia, Augusta, Ga., accompanying the request by the membership fee of two dollars.

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APRIL, 1921

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## EDITORIAL DEPARTMENT

The next Annual Meeting of the Medical Association of Georgia will be held in Rome, Ga., May 4, 5 and 6. Come prepared to stay all three days.



**DR. E. T. COLEMAN, GRAYMONT, GA.,  
PRESIDENT OF THE MEDICAL  
ASSOCIATION OF GEORGIA.**

Our President, Dr. E. T. Coleman, has had a long record of usefulness and *service* to the medical profession in Georgia. Although his term of office will expire May 7th it will not end his interest and enthusiastic work for the Medical Association of Georgia. Dr. Coleman was born in Emanuel County, Ga., January 20, 1863, and graduated from the Medical Department of the University of Georgia on March 2, 1888. Very early in his medical career he became an active member of his local, state and national medical organizations. He has served as President of the Emanuel County Medical Society, and of the First District Society. He was Vice-Councillor from the First District and later served a number of years as Councillor from the Twelfth District. He was Chairman of the Council for five consecutive years. During the War he was commissioned by President Wilson as the medical member of the District Exemption Board for the Southern District of Georgia. It was on account of the continuous and valuable service that he has rendered the Association and on account of his wonderful personality and charming manner that he was elected by his fellow-men to the highest post of honor in their possession. Let's all go to Rome to the Annual Meeting and help him make this the most successful meeting in the history of the organization.

## THE PATIENT AS A TEACHER.

Sir William Osler, whose life can well be considered an ideal guide of the present, and one of the future physicians, always reminded his students that during their undergraduate years they were learning *how* to study medicine; that after graduation the *real* study of medicine began; that those who systematically read the current medical literature and studied carefully each patient coming under their care, would begin to know medicine at about the age of ninety. This was his characteristically witty way of driving home the great truth that the life of a physician must of necessity be the life of a student.

There are three great sources of information which must be utilized by those who wish to become physicians in the true sense of the word; namely, medical literature, the great clinics, and last, but far from being the least, the patient. Practically all serious minded practitioners drink deeply of the first of these sources, a respectable portion partake of the advantages of the second, while only a few really grasp the wonderful opportunities afforded by the third. In other words, the greatest of all text books of medicine, the real reservoir of information, the immediate, ever-present opportunity for study presents itself day after day, and is too often allowed to disappear into oblivion.

There is only one way in which we, as physicians, can acquire the great fund of information which is passively stored away in each individual patient. It is a duty which we owe to ourselves to learn every fundamental fact that each patient teaches. In order to accomplish this we must cultivate the habit of studying each patient as thoroughly and as systematically as we would an article in literature in which we might for the time being be particularly interested. The results of such a systematic study should be put in the form of a permanent record. Each record should be indexed and filed in such a way as to be accessible when desired. The memory is too unreliable to be expected to carry all acquired knowledge. Thus the necessity of storing away such facts according to some simple though comprehensive method, so that by

pressing the proper key they can be brought back into consciousness.

By thus utilizing our patients for study we accomplish the following:

1. We learn more about our patient's illness, and as a result are in a better position to treat him successfully.
2. We improve our knowledge of medicine from day to day and therefore become better and better physicians.
3. We acquire a library of medical facts based on personal observation, which is more valuable than all other sources of information.

—DOWMAN.

## THE TREATMENT OF NEUROSYPHILIS.

Of particular interest at this time is the report of Stokes and Osborne<sup>1</sup> of the Mayo Clinic on the relative effectiveness of various forms of treatment in neurosyphilis on account of the rather widespread adoption of Dercum's<sup>2</sup> strong plea for spinal drainage with simultaneous intravenous arsphenamine and routine mercurial therapy. Gilpin and Earley<sup>3</sup> were the first observers to advocate this form of therapy since they obtained encouraging results in three cases on Dercum's service. Pilsbury<sup>4</sup> reported results no more favorable than those obtained by routine treatment without spinal drainage. Now comes the report of Stokes and Osborne on fifty cases treated by this method. Their method consisted of the weekly withdrawal of from 30 to 70 c.c. of the spinal fluid from fifteen minutes to one hour after intravenous administration of arsphenamine. Mercury, by inunctions or intramuscular injections of a soluble salt, was used in every case. The average number of spinal drainages was five. On completion of drainage, the patients were placed on interim inunction treatment and re-examined after intervals of from two to nine months. The somewhat disappointing results led to their being placed on Swift-Ellis-Ogilvie intraspinal treatment. A comparison of the findings on patients receiving spinal drainage in conjunction with arsphenamine intravenously and routine mercurialization, and the findings on patients receiving



an equal amount of routine treatment without spinal drainage, demonstrates no superiority in favor of the drainage method. The most immediate change produced by either of these methods of treatment is in the cell count. A transient but marked rise followed by a fall toward normal limits occurred in patients receiving spinal drainage, and they believe that a similar Herxheimer-like curve of pleocytosis accompanied by transient exacerbation of symptoms occurs in many patients under treatment for neurosyphilis by routine methods. A temporary rise in the cell count early in the course of treatment should not therefore be regarded as an unfavorable sign. In ten patients in whom spinal drainage had produced indifferent results, the administration of arsphenamized serum intraspinally some months later produced what appeared to be more satisfactory and permanent results.

The conclusions drawn by Stokes and Osborne in favor of the Swift-Ellis-Ogilvie intraspinal treatment are in accord with the findings of Mehrtens and MacArthur<sup>4</sup> that the penetration of arsenic through the meninges is increased from 43% to 92% by the therapeutic intraspinal injection of the patient's own serum six hours before the intravenous arsphenamine. Moreover they found the concentration of arsenic three times as great in patients receiving preliminary intraspinal injection. Furthermore, the same observers found that spinal drainage did not increase the arsenic penetration of the meninges. All of these findings are in direct contradiction of the theory of spinal drainage as advocated by Dercum.

1. Stokes, John H., and Osborne, Earl D.: Relative Effectiveness of Various Forms of Treatment in Neurosyphilis, *J. A. M. A.*, 76: 708-712 (March 12), 1921.
2. Dercum, F. X.: The Functions of the Cerebrospinal Fluid, With a Special Consideration of Spinal Drainage and of Intraspinial Injections of Arsphenamized Serum, *Arch. Neurol. & Psychiat.* 3: 230-251 (March 20), 1920.
3. Gilpin, S. F., and Earley, T. B.: Drainage of Cerebrospinal Fluid as a Factor in the Treatment of Nervous Syphilis, *J. A. M. A.* 66: 260-262 (January 12), 1916.
4. Mehrtens, H. G., and MacArthur, C. G.: Therapy of Neurosyphilis Judged by Arsenic Penetration of Meninges, *Arch. Neurol. & Psychiat.* 2:369-375 (October), 1919.

—BUNCE.

## HOSPITAL STANDARDIZATION.

It is very encouraging to see the progress made in hospital standardization in the South. Some of these important steps are very well illustrated in the following report from the Georgia Baptist Hospital for the month of February.

### Analyses of Hospital Service for Month of February.

Discussed at clinical meeting, Tuesday, March 8, 6 P. M., in the lecture room, fourth floor.

#### DISCHARGED.

Cured .....	18
Improved .....	231
Unimproved .....	4
For diagnosis only .....	3
Death within 48 hours .....	5
Deaths, institutional .....	7
Labor .....	17
Newborn .....	14
	299

#### DIAGNOSIS.

Provisional and final agree .....	195
Provisional and final disagree .....	12
Discharged with additional diagnosis .....	37
Discharged with no diagnosis .....	5
Labor .....	17
Newborn .....	15
	281

#### INFECTIONS AND DEATHS.

	Infections. Deaths.	
Stillborn .....	0	2
Medical .....	0	5
Surgical .....	6	3
Obstetrical .....	0	0
Newborn .....	0	1
	6	11

#### CAUSES OF DEATH.

	No.	Hist. No.
Encephalitis lethargica .....	1	7208
Foreign body in bronchus, pneumonia .....	1	7282
Cholecystitis, suppurative .....	1	7269
Asthma, edema of lungs .....	1	7317
Syphilis, tabes dorsalis .....	1	7285
Acute ileus .....	1	7352
Toxemia pregnancy .....	1	6860
Acute appendicitis, ileus, fecal fistula .....	1	6927
Chronic nephritis, uremia, cardiac insufficiency .....	1	7396
Eclampsia, ante-partum and post-partum .....	1	7441



Lobar pneumonia -----	1	7367
Chronic hydrocephalus, communicating cephalocele -----	1	7063

## CLEAN CASES INFECTED.

	No.	Hist. No.
Lateral ventral hernia -----	1	4820
Round ligament suspension of uterus----	1	7169
Appendectomy -----	1	7284
Neurectomy -----	1	7391
Complete mastectomy -----	1	7175
Complete hysterectomy -----	1	7201

On account of the surgical infections that occurred, a full discussion of preparation of patients and operative technique was presented at this meeting.

The visiting men whose cases occurred on the list of deaths or of infected cases were present and discussed interesting features in connection with each case.

It is very interesting to note under "Diagnosis" that provisional and final diagnoses agree in 195 cases and provisional and final disagree in 12 cases. We know the Georgia Baptist has a very efficient staff, but we feel certain that this high percentage of agreements between provisional and final diagnoses will be very difficult to keep up. This report shows that the hospital records and files have been rendered such attention that it is possible to obtain complete, concise and definite information about each individual case admitted to this hospital. Let each physician put his shoulder to the wheel and aid in the standardization of our workshops until Georgia ranks first in class A hospitals. When this goal is reached, Georgia must rank first in efficient physicians. PRUITT.

**ATTENTION, COUNTY SECRETARIES.**

In this issue of the Journal is printed a complete copy of the Constitution and By-Laws. The attention of the secretaries of constituent societies is called to Chapter VII, Sec. 15 of the By-Laws which states that: "The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication. Of course we know that this means a considerable amount of work for the

secretaries but it is only by such work and cooperation that we may hope to make the Journal a periodical really worth while to our members. After all, *service* should be our motto. The measure of a secretary's worth to his society is the *service* he renders. Let the officers of every society work a little harder and try to render a little more *service* to their members and to the state association and then we will approach a little more closely the ideal organization of which we dream.

**REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.**

On account of the slowness of the receipt of titles of papers to be read at the Rome meeting of the Association the Committee on Scientific Work is unable to furnish even a preliminary program for publication in this issue of the Journal. Therefore the Committee has decided to publish the program as a supplement to the Journal so that it may reach every member as early as possible.

The Committee requests that every member presenting a paper read Chapter VIII, Sections 1 and 2 of the By-Laws since these regulations will be strictly enforced by the President. A complete copy of the Constitution and By-Laws will be found in this issue of the Journal. All papers must be complete and must be turned over to the Secretary when read. Furthermore, the Committee suggests that each essayist read "Suggestions to Contributors" in the February issue of the Journal of the Medical Association of Georgia. Papers will not be acceptable unless typewritten, with wide margins, and double-spaced, on one side of paper.

The Committee deplores the fact that a number of members have been in the habit of sending in titles to papers to be presented at the Annual Meeting and have then failed to be present to read their papers. The Committee suggests that such action, except when caused by providential reasons, should bar a member from the privilege of presenting another paper for at least two years.

W. C. LYLE, M. D., Chairman

J. O. ELROD, M. D.

ALLEN H. BUNCE, M. D.

## A REPORT FROM THE CANCER COMMISSION.

J. L. Campbell, M. D., F. A. C. S., Chairman

This Commission was created in Savannah, Ga., April, 1918. Dr. J. W. Palmer at once made the appointment, which has remained intact to the present time.

Owing to the absence of so many of our profession during the War, practically nothing was done the first year. However, after consulting with members of the Commission, we decided to hold a public meeting during, or the evening before the Atlanta Meeting of the Association, April, 1919. We appealed to the American Society for the Control of Cancer, and they sent us two excellent speakers, Dr. Frederick L. Hoffman, of Newark, N. J., Third Vice-President of the Prudential Life Insurance Company, and Dr. Francis Carter Wood, of New York, Director of the Crocker Cancer Research Fund of Columbia University.

The Meeting was thoroughly advertised, the newspapers gave us their hearty cooperation, both in the news and editorial columns, and circular letters were sent to all the Women's Clubs and many civic organizations throughout the State.

The response was gratifying, for more than 1,000 people attended the meeting and from reports we have reason to believe that many people have been cured of Cancer who otherwise would have died. The expense of this meeting was borne by the Fulton County Medical Society.

Including our first meeting, we have a record of nineteen public addresses delivered on Cancer Control, two under the auspices of the State Association, two under County Societies, three at District Medical Society meetings, eight at meetings of Women's Clubs, one at Spelman Seminary for colored women and girls, one at the Atlanta Jewish Church, and one at the meeting of the Clinical Congress of the American College of Surgeons. While most of the meetings have been in Atlanta, several have been in other cities, viz. Columbus, Macon, Adairsville, Waycross, Douglas, Montezuma and Tifton.

Some of the meetings deserve especial no-

tice. The first one, as already noted, was attended by more than one thousand people. It was important not only for the number present, and the interest shown, but on account of the extensive newspaper publicity given it. All of the Atlanta papers gave splendid editorials and many of the papers throughout the State made favorable comment on the subject.

Drs. Hoffman and Wood very kindly consented to address a meeting of the Women's Club while they were here and also went out to Spelman Seminary, where between three and four hundred colored girls and women and the teaching body gave them splendid attention.

While Dr. E. G. Jones was President of the State Association, he and I visited several District Meetings and found that there was a great deal of interest being shown in the subject.

Dr. Harvey R. Gaylord of Buffalo, N. Y., Director of the State Institute for the Study of Malignant Diseases, addressed about eight hundred people at a meeting in Wesley Memorial Church, under the auspices of the Fulton County Medical Society last May. He also went to Macon for a public address Thursday evening during the meeting of the State Association. Governor Dorsey attended the meeting and introduced Dr. Gaylord. This is the first time in the history of the State Association that the Governor has honored it with his presence.

There is at present much interest being manifested in cancer control by the women of the State. They have arranged to have it discussed at practically all of their District Meetings. Mrs. Noel Park, of Greensboro, is very enthusiastic in her efforts to bring the subject to the attention of the Women's Clubs. She has undertaken to deliver a short address at each of these meetings.

Mrs. Albert Thornton, President of the Atlanta Federation of Women's Clubs, invited the Officers of the Atlanta Clubs to her residence to hear Dr. J. C. Bloodgood discuss the subject when he was in Atlanta last January. There were more than one hundred and fifty of the best women in Atlanta present. The same evening, Dr. Bloodgood also spoke to the Jewish Congrega-



tion. The address was enthusiastically received, and since that time, we have furnished slides for an address to one of the Orthodox Jewish Clubs, at which about one hundred women were present.

Dr. C. W. Roberts recently delivered an illustrated address to about two hundred and fifty women at Tifton.

Acting on my request, Dr. Franklin H. Martin arranged for Dr. Bloodgood's visit to Atlanta last January, when he delivered a most important address at Wesley Memorial Church in addition to the two already mentioned.

Arrangements have been made for the Red Cross Nurses to take up the work in their District Nursing, and the Atlanta Public School Nurses are also to bring the subject to the attention of the Parent-Teacher Associations during the Spring months.

After a careful study of this subject, I have come to the conclusion:

(1) That we must bring this subject well home to the doctors. Get them to realize that cancer is on the increase; that in the past fifteen years, where the death rate from tuberculosis has decreased 29.8%, cancer deaths have increased 29.8%. Efforts are now being made to have every County Society in the State devote one meeting to the study of cancer.

(2) Public meetings are the most available means of reaching the laity, and while it is perfectly legitimate for a medical man to address these meetings, a well informed layman can have more effect, for it removes from the minds of the public all thought of a selfish motive.

(3) I feel that it would be wise for the Association to insist that the Commission Member in each District, request and assist the County Societies to hold special scientific meetings on the control of cancer, once or twice a year.

324 Candler Bldg.

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### WANTED—COPIES OF THE JOURNAL.

The New York Academy of Medicine has a complete bound set of the Journal of the Medical Association of Georgia from its establish-

ment with the exception of the numbers mentioned below. On account of the many requests from members of the Association and others for back numbers we are unable to furnish any more extra copies of previous issues. Therefore you will render a real service if you will look over your old files and see if you have any back numbers which you can furnish your Editor. Those wanted are:

All issues of 1918.

September, October, November and December of 1919.

February, March, April, May, July, August, September and October of 1920.

We want all extra copies we can get that have been published since the Annual Meeting in Macon last year. We want these to supply the demand for extra copies containing many articles of unusual interest by our members. As an example we have had requests from Maine to California and from Michigan to Texas for copies of the January issue of the Journal containing the article by our fellow-worker Lee Ben Clarke on Ductless Gland Therapy in Defective Children.

Please send all copies direct to the office of the Journal.

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### BRICKBATS AND BOUQUETS.

Atlanta, Ga., March 26, 1921.

Dear Doctor Bunce:

You are getting out a good journal. It will be better and encourage contributors if you can get good proof-reading. For instance, in my case report—p. 250, 6th line above cut "effective" should be "ineffective," and p. 250, 3rd line from top, 2nd column, "5 cm." should be ".5 cm." Think of a scar .2 inches in diameter! The cut is excellent.

Yours sincerely,

M. B. HUTCHINS.

We extend our most humble apologies to Dr. Hutchins. In order to eliminate just such errors, we have been sending galley proofs to all contributors, but for some reason this was not done in this instance. We appreciate constructive criticism and ask the aid of each and every member in helping to build up a better Journal.—Ed.



### ABSTRACTS.

John G. Williams, M.D. *Two Unusual Chest Cases.* (The Am. Jo. of Ro.), Vol. VIII, Jan., 1921.

A case of hysterical aphagia. Patient saved a child from choking to death fourteen years previous, and from that time was afraid of choking to death during her meals, the fear being so strong at times that it interfered with deglutition. These attacks were of a slight and transitory type. They consisted mostly of coughing and sudden regurgitation of food from esophagus, occasional entrance of food into the nares and belching of gas. Physical examination at this time was negative. After attempts to pass stomach tube, it was discovered that she could not swallow on account of complete anesthesia of the pharynx and larynx. Later she began suffering with difficult breathing and cyanosis. Examination showed many rales in chest. On swallowing no liquid entered the stomach. Röntgen examination showed that all food and liquids given entered the trachea, filling the larger and smaller bronchial divisions in the lower lobes. Patient developed a tolerance to the presence of foreign material in her lungs. Illustrations show barium meal distributed throughout the lower bronchi, and patient gave no evidence of discomfort. This was all coughed up in two days. This condition persisted about a month, with gradual improvement, and finally she completely recovered. The interesting points of the case are the complete absence of reflexes from the larynx, pharynx, trachea and bronchi, which must all have been effected by the neurotic hysteria present in this patient.

J. J. CLARK.

W. D. Witherbee, M.D. *X-Ray Treatment of Tonsils and Adenoids.* (The Am. Jo. of Ro.), Vol. VIII, Jan., 1921.

The writer reports results in 60 cases of diseased tonsils treated by X-ray with careful bacteriological studies before, during and after treatment, proving definitely the decrease in hæmolytic streptococci following treatment, with complete absence of bacteria in crypts at second week. The early response

of lymphoid tissue to rays is clearly shown by rapid decrease in the tonsillar and adenoid growths with evacuation of the crypts. Comparison of sections made from large tonsils and from the remains of tonsils two to four months after X-ray treatment clearly shows the destruction of lymphoid tissue resulting from rays. His technique in treating children requires fixation of child, while in adults the position is acquired by pillows. Dosage, either massive or fractional, depending on age and health of patient. Fractional dosage gave the best results and required only four treatments. The effect not only on the tonsils and adenoids, but on the infratonsillar nodules or tonsillar branches, is marked. The results in carriers of infection are excellent on account of the evacuation of the crypts. This has been demonstrated on carriers of diphtheria and influenza. His conclusions are that this method of treatment is especially indicated in cases of diseased tonsils and infratonsillar lymph nodes associated with chronic endocarditis, pericarditis or hemophilia, or any co-existing conditions which contraindicate operation or anæsthesia.

J. J. CLARK.

### DUCTLESS GLAND THERAPY IN DEFECTIVE CHILDREN.

"Clarke's work was limited entirely to infants and very few young children. As a result of his study, he has established to his satisfaction that many cases of apparent idiocy—the spastic child, the defective child—are due to disordered internal secretions, and that many of these cases are not, as hitherto supposed, hopeless. Schools especially conducted for the training of the defective child may prove useless and unnecessary, and it is possible that a few months' treatment, as has occurred in many of Clarke's cases, may be of more benefit toward developing a fairly good mental and physical condition than all the schools for this purpose have ever accomplished. The birth paralysis type of infantile cerebral paralysis, whether it be spastic diplegia, paraplegia or hemiplegia, has shown remarkable improvement under treatment. Infantile cerebral paralysis has been classified, in the

main, as of three types, with many variations: (1) Intra-uterine origin, occurring prior to birth; (2) extra-uterine origin, occurring at birth, and (3) acquired. Clarke insists that spinal fluid Wassermann and other studies of the spinal fluid be made in all cases in which nervous syphilis is suspected, and that Röntgen-ray examinations of the sella turcica and surrounding structures are of great diagnostic value. Treatment with endocrine gland extracts resulted in satisfactory improvement in the cases studied."—*Jour. A. M. A.*, Feb. 19, 1921.

This article has aroused much interest among the medical profession in the United States, as shown by the requests for copies of the Journal in which this article appeared.—Ed.

### RESULTS OF OPERATION FOR VARICOCELE.

During the period immediately preceding and after the entrance of the United States into the World War and while recruiting was in active progress, a large number of operations for varicocele were performed on young men in order to permit their entrance into the Army or Navy. As a result of one of these operations in which the ligation of the veins was followed by the development of a hydrocele, a suit for alleged malpractice was brought. A search of the American literature at this time, in order that the highest medical authorities on the subject might be quoted, revealed the fact that modern textbooks on urology and on general surgery fail with one exception to recognize the frequency of this complication. John Douglas, New York (*Journal A. M. A.*, March 12, 1921), after a study of the end-results of 303 operations for varicocele at St. Luke's Hospital, reached these conclusions: The operative treatment of varicocele is frequently followed by hydrocele. Of a total of 303 operations, 76 patients were examined, 30 of whom, or 39 per cent., had a hydrocele; forty reported by letter or telephone, and of these 7, 17 per cent. stated that hydrocele had developed. Of the total of 106 patients examined or reporting by letter, 37, or 35 per cent., had hydrocele. Four, or about 4 per cent., had atrophy of the testicle, and there were two recurrences of the varicocele. The operation should not be performed except in those cases

of very large varicocele giving marked symptoms in a non-neurasthenic patient—certainly not in the type of cases previously referred by the various medical examining boards for admission to the Army or Navy. If the operation is undertaken, the frequency of hydrocele as a complication should be explained to the patient as a protection to the operating surgeon. In the performance of the operation every care should be taken to avoid trauma to the veins of the cord, and to prevent hematoma or even slight infection, and thus to limit thrombosis and also to avoid the ligation of the spermatic artery as well as the artery of the vas.

### NEWS ITEMS.

Dr. J. C. Logan, secretary, reports that it is very gratifying to see the splendid monthly programs, the wide-awake membership and enthusiastic attendance of the Sumter County Medical Society. The spirit of fellowship and good will seems to prevail and the social features at these meetings are refreshing. Dr. Charles Greer, secretary of the Third District Society, was present at the last monthly meeting, and plans were made to entertain the Third District Medical Society in June. A good meeting is to be expected.

Madison County Medical Society reports the following officers for the year 1921:

President—Dr. L. E. Roper, Comer, Ga.

Vice President—Dr. R. J. Westbrook, Ila, Ga.

Secretary-Treasurer—Dr. J. L. Baker, Carlton, Ga.

Delegate—Dr. J. W. Wallace.

Censors—Drs. W. D. Gholston, J. S. Daniel, A. J. Griffeth.

The decrease in the membership of this society is to be very much regretted. We hope within the near future the old members will see the necessity of belonging to the State Association and return to the fold, and I am certain they will be welcomed as the prodigal son.

The Morgan County Society reports the following officers for the year 1921:

President—Dr. A. K. Bell, Madison, Ga.

Vice President—Dr. F. M. Prior, Apalachee, Ga.

Secretary-Treasurer—Dr. J. H. Nicholson, Madison, Ga.

Delegates—Drs. A. K. Bell, W. M. Fambrough.

Alternate—Dr. G. C. Gambrell.

Censors—Drs. R. W. Trotter, J. L. Porter, D. M. Carter.

The excellent report which has just been received is to be much appreciated.

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The Tombs County Medical Society reports the following officers for the year 1921:

President—Dr. J. E. Mercer, Vidalia, Ga.

Vice President—Dr. I. E. Aaron, Lyons, Ga.

Secretary-Treasurer—Dr. W. W. Odom, Lyons, Ga.

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The Ninth District Medical Society held its meeting on March 16 at Gainesville. The Society was called to order by the president, Dr. D. C. Kelly. A good attendance was present, and the following papers were read:

“The Role of the Sanatorium in the Control and Treatment of Tuberculosis,” Dr. Edson W. Glidden, Alto, Ga.

“Bronchial Asthma,” Dr. M. D. Allen, Hoschton, Ga.

“Treatment of Arthritis,” Dr. Theo. Toepel, Atlanta, Ga.

“Etiology, Prevention and Treatment of Eclampsia,” Dr. Laetus Sanders, Commerce, Ga.

“Nitrous Oxide Gas in Obstetrics,” Dr. H. E. Crow, Talmo, Ga.

“Talk on Some Interesting Cases,” Dr. L. C. Allen, Hoschton, Ga.

A sumptuous dinner was served at the New Country Club, during which the following officers were elected and the next meeting place chosen:

President—Dr. H. E. Crow, Talmo, Ga.

Vice President—Dr. M. F. Nelms, Commerce.

Secretary-Treasurer—Dr. A. D. White, Gainesville.

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The Barrow County Medical Society held its regular monthly meeting in Winder on

March 14. The society was called to order by the president, Dr. J. C. Daniel, and the minutes of the previous meeting were read by the secretary, Dr. T. L. Holcombe. Dr. S. T. Ross gave an interesting talk on the “Treatment of Carbuncles.” There was a general discussion of the subject. Dr. Allen H. Bunce gave a talk on the work being accomplished by the State Association, and explained in detail the financial status of the official Journal of the Association. The subject of “Medical Defense” was also considered. After this there was an interesting talk by the Red Cross nurse in reference to her work among the school children, and then a lantern slide demonstration of the method of the manufacture of diphtheria antitoxin by Dr. Hicks.

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Dr. John Walter Huston wishes to announce the removal of his office to the Drhummor Building, Rooms 206-208, Asheville, N. C., February 15, 1921. Special attention given to tuberculosis.

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Dr. Charles Harry Harvey, Atlanta, announces opening of offices at 102 Forrest Avenue. Dermatology, Urology and Röntgenology.

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The new addition of the Piedmont Sanatorium, 267 Capitol avenue, is rapidly nearing completion. This building is the first of a number of proposed units which will be added to the present hospital. There are 65 new private rooms with private baths in this addition. We are very much pleased to note that in this unit space is provided for a rest room and library for nurses. Application blanks and information in reference to the training school, etc., can be secured by writing the superintendent of nurses, Miss Hazel M. Baer, R. N.

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### THE FOURTEENTH ANNIVERSARY OF THE ANTI-TUBERCULOSIS ASSOCIATION.

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The fourteenth anniversary of the fight waged against tuberculosis in Atlanta was celebrated at Edison Hall on February 10, 1921, at 4 o'clock.

The reports showed great progress in both



medical and health educational work during the past year. Education of children in the public schools was emphasized by a talk by Miss Myra Graves, director of physical education and hygiene in the public schools. This talk was followed by a demonstration of a modern health crusade by several school children.

Dr. C. C. Aven, chief of the medical staff of the association, made the report of the Medical Department. He called attention to the various kinds of work the medical staff does, because of the intimate relationship existing between tuberculosis and other physical defects and diseases. He emphasized the work among children as being most important. An average attendance of children in the Pediatric Clinic was forty.

The number of cases handled during the year was 1478, of whom 310 had tuberculosis; 490 exposed to it and needing treatment of other kinds; 498 were children in the preventive clinic; 139 non-tuberculous; 42 observed as feeble-minded. Of all the patients only 43 were lost sight of, giving complete records of 97 per cent. of cases. Forty-one died during the year. Of the 1478 patients, 964 were between the ages of 15 and 35, showing the frequency of tuberculosis around the age of puberty.

The following physicians comprise the medical staff:

**Consulting Staff.**—Dr. Allen H. Bunce, Pathologist; Dr. J. W. Landham, Roentenologist; Dr. E. C. Davis, Gynecologist; Dr. Jas. N. Brawner, Neurologist; Dr. E. C. Thrash, Pulmonary; Dr. R. T. Dorsey, General Medicine; Dr. Geo. Niles, Gastro-Enterologist; Dr. R. R. Daly, Eye, Ear, Nose and Throat.

**Active Staff.**—Dr. C. C. Aven, Chairman, Pulmonary; Dr. Z. S. Cowan, Pulmonary; Dr. M. F. Morris, Pulmonary; Dr. A. M. Dimmock, Pulmonary; Dr. H. B. Kennedy, Pulmonary; Dr. Floyd, Pulmonary; Dr. S. A. Folsom, Pulmonary; Dr. M. B. Copeloff, Pulmonary; Dr. Dan Y. Sage, Gynecologist; Dr. Grady Cannon, Laryngologist; Dr. O. H. Matthews, Obstetrician; Dr. O. E. Ware, Assistant Laryngologist; Dr. L. H. Muse, Pediatrician; Dr. C. A. Almand, Pediatrician; Dr. Richard M. Eubanks, Dentist; Dr. Cosby Swanson, Dermatologist; Dr. N. M. Owensby, Psychiatrist; Dr. F. C. Nesbit, Andrologist; Dr. Michael Hoke, Orthopedist; Dr. Trimble Johnson, Gastro-Enterologist; Dr. Marion C. Pruitt, Surgeon.

**Visiting Nurses.**—Miss Nell Brown, Supervisor; Mrs. I. K. Kenan; Mrs. Elizabeth Smith; Mrs. Cecil

Greenwood; Mrs. Myrtis Worley.

**Colored Visiting Nurses.**—Tela Irvin, Agnes Anderson.

## BOOK REVIEW.

**THE ROENTGEN DIAGNOSIS OF DISEASE OF THE ALIMENTARY CANAL.** Second Edition. By Russell D. Carman, M. D., Head of Section of Roentgenology in the Division of Medicine, Mayo Clinic and Professor of Roentgenology (Mayo Foundation), Graduate School of Medicine, University of Minnesota, Second Edition Thoroughly Revised. Octavo of 676 pages with 626 original illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth \$8.50 net.

The second edition of this excellent work comes to us, and is full of profitable matter. The author has successfully collated much of the literature of the subject, which has appeared in various journals, besides making use of the extensive material coming under his observation at the Mayo Clinic. There are no marked nor revolutionary changes from the first edition, but this edition is somewhat more full, and some of the subjects are covered in a more comprehensive manner. This may be considered as a more reliable exposition of the subject as stated in the title.

NILES.

**PEDIATRICS AND ORTHOPEDIC SURGERY,** under general editorial charge of Charles L. Mix, A. M., M. D. Pediatrics edited by Isaac A. Abt, M. D. Orthopedic Surgery edited by Edwin W. Ryerson, M. D. with the collaboration of Robert O. Ritter, M. D. The Practical Medical Series of 1920 Vol. IV, 256 pp, Chicago, Year Book Publishers, 304 S. Dearborn St., price \$1.75.

A review of the worlds current literature in Pediatrics and Orthopedic Surgery for the year 1919. Intended primarily for the general practitioner but of great value to anyone wishing to keep abreast with the recent American and foreign contributions on these subjects.

The first half of the book is devoted to pediatrics. Each original paper has been carefully abstracted with editorial notes added in which the editor agrees or disagrees with the views of the authors. Interesting abstracted articles appear on: The New-Born, Infant Feeding, Child Welfare, Nutritional Disturbances, Gastro-Intestinal Diseases, Rickets, Scurvy, Tetany, Acute Infectious Diseases, Respiratory, Cardiac, Genito-urinary, Ductless Glands, Skin and Blood Diseases, Tuberculosis and Syphilis.

The second half of the book is devoted to a carefully abstracted review of orthopedic surgery of American and foreign literature for the year 1919, with editorial notes in which the editor agrees or disagrees with the authors. Interesting abstracted articles occur on: Injuries and Disease of the Spine, Dislocations, Fractures, Nerve Injuries, Bone Surgery and probably the most comprehensive review of Snapping Hip ever published. I note the editor states that he has never observed a snapping hip in a female and that he does not recall any feminine case in literature. It does occur, as I have personally seen one case.

PRUITT.

**PRACTICAL PREVENTIVE MEDICINE.** Mark F. Boyd. Published by W. B. Saunders Company.

The charm of this book is that it contains so much in so few pages. The trend of book writers is to give much matter and little meat. The field of sanitation is covered, not comprehensively, but

briefly and clearly. It is truly a hand-book for students but would be little value to advanced workers. The author gives a brief survey of practically everything pertaining to health, hygiene and sanitation. Its compactness and the systematic way in which each subject is handled makes it peculiarly fitted for a text book. The subject matter is about what is needed for the course that should be given upon this subject in medical colleges.

There is one adverse criticism to be made and

that is, the three diseases that are in the greatest need to be controlled, since typhoid fever has been emasculated, are passed over too casually. These are malaria, tuberculosis, and syphilis. These three "Captains of Death" should have been discussed at length without so much deference to brevity. A comprehensive chapter upon each of these three would have made this book complete for the purpose the writer must have had in mind when writing it.

E. C. THRASH.

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## **ANNUAL MEETING**

### **Medical Association of Georgia**

**ROME, GA.**

**May 4th, 5th and 6th**

Come prepared to stay all three days and participate in the best meeting in the history of the Association.

Bring your 1921 membership card so that

registration may be facilitated.

Bring your wife as there will be special entertainment for the ladies.

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## **Annual Dues for 1921 Now Due**

### **FIVE DOLLARS**

Plus the dues of your local Society, should be sent or handed to the Secretary of your County Medical Society now.

## **DO NOT BECOME DELINQUENT**

To do so, means loss of membership, loss of Journal and loss of the best Medico-Legal protection.

## WANTED

Back copies of the Journal of the Medical Association of Georgia. See page 403, this issue. Look over the list of copies wanted and forward any you can spare to the Secretary so that libraries and schools may have a complete file of our Journal.

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Herewith appears the complete Constitution and By-Laws as amended to date.—Secretary.

## CONSTITUTION AND BY-LAWS OF THE MEDICAL ASSOCIATION OF GEORGIA.

### Constitution.

#### ARTICLE I—NAME OF THE ASSOCIATION.

The name and title of this organization shall be the Medical Association of Georgia.

#### ARTICLE II—PURPOSES OF THE ASSOCIATION.

The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Georgia; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of State and medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

#### ARTICLE III—COMPONENT SOCIETIES.

Component Societies shall consist of those county medical societies which hold charters from this Association.

#### ARTICLE IV—COMPOSITION OF THE ASSOCIATION.

Section I. This Association shall consist of members and delegates.

Sec. 2. Members: The members of this Association shall be the members of the component county medical societies, to which only white physicians shall be eligible.

Sec. 3. Delegates: Delegates shall be those members who are elected in accordance with this constitution and by-laws to represent their respective component societies in the House of Delegates of this Association.

#### ARTICLE V—HOUSE OF DELEGATES.

The House of Delegates shall be the business body of the Association, and shall consist of (1) Delegates elected by the component county societies; (2) the Councilors, and (3) ex-officio the President and Secretary of this Association.

#### ARTICLE VI—COUNCIL.

The Council shall consist of the Councilors, and the President and Secretary, ex-officio. Besides its duties mentioned in the by-laws, it shall constitute the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

#### ARTICLE VII—SESSIONS AND MEETINGS.

The annual meetings shall take place on the first Wednesday in May and at such place as shall be designated by the Association.

#### ARTICLE VIII—SESSIONS AND MEETINGS, SOCIETIES.

The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections, and for the organization of such Councilor District Societies, as will promote the best interests of the profession, such societies to be composed exclusively of members of component societies.

#### ARTICLE IX—OFFICERS.

Section 1. The officers of this Association shall be a President, two Vice-Presidents, a Secretary-Treasurer, and twelve Councilors, one from each congressional district.

Sec. 2. The officers, except the Secretary-Treasurer, and Councilors, shall be elected annually. The terms of the Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged, viz: the Councilors for the first, second, third and fourth districts for three years; those for the fifth, sixth, seventh and eighth for two years; those for the ninth, tenth and eleventh for one year (adopted 1905). The Secretary-Treasurer shall be elected for a term of five years. All these officers shall serve until their successors are elected and installed.

Sec. 3. The officers of this Association shall be elected by the Association by ballot, and without nomination at 3 o'clock on the third day of the annual session. If there is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until election occurs. Delegates to the American Medical Association shall be elected at same time and in same manner.

#### ARTICLE X—FUNDS AND EXPENSES.

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall not exceed the sum of \$5 per capita per annum. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be referred to the finance committee before action is taken thereon.

#### ARTICLE XI—RATIFICATION.

The House of Delegates shall submit all questions before it to the Association for ratification.

#### ARTICLE XII—THE SEAL.

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

#### ARTICLE XIII—AMENDMENTS.

Any amendment that may be offered to the Constitution shall lie over until the next annual meeting; and for its adoption at such meeting shall require a two-thirds vote of all present and voting.

### By-Laws.

#### CHAPTER I—MEMBERSHIP.

Section 1. The name of a physician on the properly certified roster of members of a component

society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Sec. 4. Any member for old age, length of service, or other good reasons, may upon recommendation of the Board of Censors, be elected to honorary membership of his county society without dues. Such member shall be enrolled as honorary member of his county society and this Association, and shall be entitled to all of the privileges of the Association.

#### CHAPTER II—GENERAL MEETINGS.

Section 1. All registered members may attend and participate in the proceedings and discussions of the general meetings. The general meetings shall be presided over by the President or by one of the Vice-Presidents.

This By-Law shall not prohibit the Committee on Scientific Work from inviting not more than two distinguished members of the national organization to deliver addresses or read papers at any annual meeting. No such address or paper shall exceed the time limit fixed by the Committee on Scientific Work.

Sec. 2. Entertainments. Any entertainment which may be given by this Association shall be confined to the evening of the second day.

#### CHAPTER III—HOUSE OF DELEGATES.

Section 1. The House of Delegates shall meet at 9 a. m. on the first day of the annual session. It may adjourn from time to time as may be necessary to complete its business; provided, that its hours shall conflict as little as possible with the general meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate. Should the regular delegate from any county not be present

at the meeting, the President shall appoint a substitute from that county to act.

Sec. 3. A majority of delegates present shall constitute a quorum.

Sec. 4. It shall through its officers, council and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until every physician in every county of the State who can be made reputable has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work as well as home study, and shall endeavor to have the results utilized, and intelligently discussed in the county societies.

Sec. 8. It shall divide the State into councillor districts, one for each congressional district, and when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies and no others shall be members in such district societies.

Sec. 9. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate thereon.

#### CHAPTER IV—DUTIES OF OFFICERS.

Section 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

Sec. 2. The Vice-President shall assist the President in the discharge of his duties. In the event



of the President's death, resignation, or removal, the Vice-Presidents, in their order, shall succeed him.

Sec. 3. The Secretary-Treasurer shall give bond in the sum of \$1,000. He shall demand and receive all funds due the Association, together with the bequests and donations. He shall pay money out of the treasury only on a written order of the President.

Sec. 4. The Secretary-Treasurer shall attend the general meetings of the Association and the meetings of the House of Delegates, and shall keep the minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record-books and papers belonging to the Association. He shall provide for the registration of the members and delegates at the annual session. He shall with the co-operation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and on request transmit a copy of this list to the American Medical Association. He shall aid the Councillors in the organization and improvement of the county societies in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be ordered by the House of Delegates with the approval of the Association, and shall make an annual report to the Association. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessment and collect the same. Acting with the committee on scientific work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Association. He shall be editor of the Journal of the Medical Association of Georgia. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

He shall furnish a balance sheet at each annual meeting for the past fiscal year to be published in the Journal. This shall consist of an itemized statement of all financial transactions of the past year, all accounts made, money received and from whom, and all moneys disbursed, to whom, and for what purpose, with vouchers attached. A fiscal year includes the period of time between the first day of January and the last day of December.

#### CHAPTER V—COUNCIL.

Section 1. The Council shall meet on the day preceding the annual session and daily during the session, and at such other times as necessity may require, subject to the approval of the President. It shall meet on the last day of the annual session of the Association to organize and outline work for

the ensuing year. It shall elect a chairman and clerk, who, in the absence of the Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates.

Sec. 2. Each Councillor shall be organizer and peacemaker for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates. The necessary traveling expenses incurred by such Councillor in the line of the duties herein imposed may be allowed by the House of Delegates on a proper itemized statement, but this shall not be construed to include his expense in attending the annual session of the Association.

Sec. 3. The Council shall be the board of censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of a component society, on which an appeal is taken from the decision of an individual Councillor, and its decision in all such matters shall be final when ratified by the Association.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and these societies, when organized and chartered shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association, and shall have authority to appoint such assistants to the editor as it deems necessary. It shall manage and conduct the Journal of the Medical Association of Georgia, which is the organ of the Association, and all money paid into the treasury as dues shall be received as subscriptions to the Journal.

All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Secretary-Treasurer of the Association. As the Financial Committee it shall annually audit the accounts of the Secretary-Treasurer and other agents of this Association, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publi-



cations of the Association during the year, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary. In the event of a vacancy in any office, the Council shall fill the vacancy until the next annual election.

Sec. 6. All reports on scientific subjects and all scientific discussions and papers heard before the Association, shall be referred to the Journal of the Medical Association of Georgia for publication. The editor, with the consent of the Councilor for the district in which he resides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may not consider suitable for publication.

Sec. 7. All commercial exhibits during the annual sessions shall be within the control and direction of the Council.

Sec. 8. Any member of the Council who fails to attend two regular successive sessions of the Council, or whose district does not show evidences of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, his position shall be declared vacant by the President and his successor appointed by the President.

Sec. 9. In the absence of a Councilor the President is empowered to appoint a representative from the District as acting Councilor.

Sec. 10. Each Councilor shall render at every session a written report of each county in his district.

#### CHAPTER VI—COMMITTEES.

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Arrangements.

A Committee on Medical Defense, and such other committees as may be necessary.

Sec. 2. The Committee on Scientific Work shall consist of three members of which the Secretary-Treasurer shall be one, and shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.

Sec. 3. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary. Under the direction of the House of Delegates it shall represent the Association in securing and enforcing legislation in the interest of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, State and national affairs and elections.

Sec. 4. The Committee on Arrangements shall be appointed by the component society in which the

annual session is to be held. It shall provide suitable accommodations for the meeting places of the Association and of the House of Delegates, and of their respective committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary-Treasurer for publication in the program, and shall make additional announcements during the session as occasion may require.

Sec. 5. The Committee on Medical Defense shall consist of five members, of whom the Chairman of the Council and the Secretary-Treasurer of the Association shall be members. The other members, one of whom shall act as Chairman of the Committee, shall be elected by the Council for a period of five years. Those elected at this meeting (April 19, 1916) shall serve one, three and five years, respectively.

It shall be the duty of the Committee on Medical defense to investigate and defend all damage suits against the Medical Association of Georgia; to investigate all claims of civil malpractice made against its members; to take full charge of such cases, which after investigation, they decide to be proper cases for defense; to defend all such cases to the courts of last resort and pay all costs of such defense. However, they shall not pay, or obligate the Medical Association of Georgia to pay, any judgement rendered against any member upon the final determination of any case. They shall be empowered to contract with such agents or attorneys as they may deem necessary for the proper carrying out of this By-Law.

The assistance for defense, as herein provided, shall be available only to members of the Medical Association of Georgia in good standing. Any member who has not paid his annual dues by February 1st shall not be considered in good standing in the application of this By-Law.

Any member or members of the Association threatened with suit for civil malpractice shall immediately communicate with the Secretary of the Association and shall give full and complete information in reference to all the circumstances alleged in the complaint. The Secretary shall proceed immediately to investigate the circumstances reported and shall advise with the attorneys or agents employed by the Committee for this purpose. The member sued, or threatened with suit, shall be consulted and shall have the complete confidence of the Committee in all transactions connected with the investigation in question. The Committee shall have the authority to require of a constituent society, or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the committee so appointed to report to the Committee on Medical Defense and not to the society from which it was appointed.

The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia and assist in the

enforcement of the Medical Practice Act of this State.

#### CHAPTER VII—COUNTY SOCIETIES.

Section 1. All county societies now in affiliation with this Association, or those which may hereafter be organized in the State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall on application, receive a charter from and become a component part of this Association.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charter shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Association. The Association shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one competent medical society shall be chartered in any county.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every reputable and legally registered white physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Sec. 6. Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final, when ratified by the Association.

Sec. 7. In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councillors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component society moves to another county in this State, his name, on request, shall be transferred, without cost, to the roster of the county society into whose jurisdiction he moves.

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and

by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the annual session of this Association, each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association, in the proportion of one delegate to each fifty members, or fraction thereof, and the Secretary of the society shall send a list of such delegates to the Secretary of this Association at least ten days before the annual session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary of this Association each year, thirty days before the annual session.

Sec. 14. Any county society which fails to pay its assessment, or make the report required, on or before April 1 of each year, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association, or of the House of Delegates, until such requirement has been met.

Sec. 15. The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

#### CHAPTER VIII—MISCELLANEOUS.

Section 1. No address or paper before the Association shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject, except by unanimous consent.

Sec. 2. All papers read before the Association, or any of the sections, shall become its property. Each paper shall be deposited with the Secretary when read.

Sec. 3. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

#### CHAPTER IX—AMENDMENTS.

These By-Laws may be amended at any annual session by a majority vote of the Association, after the amendment has laid on the table for one day.



## PRINCIPLES OF MEDICAL ETHICS

### Chapter I.—The Duties of Physicians to their Patients.

#### The Physician's Responsibility.

Section 1. A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

#### Patience, Delicacy and Secrecy.

Sec. 2. Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidence entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

#### Prognosis.

Sec. 3. A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family.

#### Patients Must Not Be Neglected.

Sec. 4. A physician is free to choose

whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.

### Chapter II.—The Duties of Physicians to Each Other and to the Profession at Large.

#### Article I.—Duties to the Profession—Uphold Honor of Profession

Section 1. The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thralldom is to take away all liberty from one's action and thought." (Nicon, father of Galen.)

#### Duty of Medical Societies.

Sec. 2. In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

#### Deportment.

Sec. 3. A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting him-



self with propriety in his profession and in all the actions of his life." (Hippocrates.)

### **Advertising**

Sec. 4. Solicitation of patients by circulars or advertisements, or by personal communications or interviews, not warranted by personal relations, is unprofessional. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The application or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not per se improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

### **Patients and Perquisites.**

Sec. 5. It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

### **Medical Laws—Secret Remedies.**

Sec. 6. It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or other secret

remedial agents, or manufacture or promote their use in any way.

### **Safeguarding the Profession.**

Sec. 7. Physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. Every physician should aid in safeguarding the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

### **Article II.—Professional Services of Physicians to Each Other.**

#### **Physicians Dependent on Each Other.**

Section 1. Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

#### **Compensation for Expenses.**

Sec. 2. When a physician from a distance is called on to advise another physician or one of his family, dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

#### **One Physician to Take Charge.**

Sec. 3. When a physician or a member of his dependent family is seriously ill, he or his family should select a physician from among his neighboring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

(To be continued.)

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## States With Which Georgia Reciprocates:

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To be unveiled during the May meeting of the Medical Association of Georgia, at Rome, Ga.

To Dr. M. M. McCord, Custodian of the Battey Memorial Fund:

Option 1. I herewith inclose my check for \$-----to be applied to fund being raised to erect a memorial to Dr. Robert Battey.

Signed-----

Option 2. To Dr. M. M. McCord, Custodian of the Battey Memorial Fund, Rome, Ga.

I wish to have a part in the memorial to be erected to Dr. Robert Battey: I therefore subscribe \$-----which I agree to pay on or before May 1, 1921.

Signed-----

Please sign one of the above options and at once mail to Dr. M. M. McCord, Custodian, Rome, Georgia.

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Next Annual Meeting, Rome, May 4th, 5th, 6th, 1921

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ARSENIC AND MERCURY	5 c.c. Sodium Dimethylarsenate (Cacodylate) U.S.P., 2 grams. (31 grains); Mercury Iodide, U.S.P., 5 mg. (1-12 grains). Also in 1.5 gm. and .7 gm. doses.	Syphilis, Tropical Fevers.
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**TECHNIC:** Do not dilute this solution. Break ampoule, draw into all-glass syringe, and attach a 23 to 25 grain needle. Use tourniquet or have patient grasp the arm with his free hand until the veins at the bend of the elbows stand out prominently; run the needle into the vein quickly. Blood usually comes back into syringe back of needle or can be drawn to be certain that needle is in the vein; release pressure, then inject slowly.

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# THE JOURNAL

OF THE

## MEDICAL ASSOCIATION OF GEORGIA

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No. 12

### ORIGINAL ARTICLES

#### REPORT OF THE RADIUM SERVICE OF THE HARBIN HOSPITAL FROM FEBRUARY FIRST TO DECEMBER FIRST 1920.\*

W. H. LEWIS, B. A., M. D.  
Rome, Ga.

About February first, Mr. J. P. Cooper placed at the service of the Harbin Hospital one hundred milligrams of Radium Salts to be used for legitimate professional purposes. The fees were to be adjusted directly in proportion to the financial situation of the patient. In other words all who needed attention were to receive it whether they could pay or not. Those who could pay even a small sum without real sacrifice were expected to do so.

This financial basis was established because the customary charge for the use of radium usually amounted to such a figure that men in ordinary circumstances could not consider it and rendered inaccessible to them the benefits to be derived from radium. It is gratifying to state that in the period covered by this report the financial returns have been about one-sixth of what the ordinary fees would have been, amounting to less than 6 per cent on the investment. No charge was made for 22 cases, less than \$25 was paid by 46 and 15 paid more than \$25. This money forms a fund for further philanthropic use and accrues to the profit of no individual nor organization.

Our supply of radium is in three forms, flat containers for plane surfaces, needles for

insertion into masses, and capsules for sundry manner of applications. In a period of ten months 83 cases have been treated with an exposure of 209000 miligram hours. This means one hundred milligrams in use for 2090 hours or continuous application of 24 hours a day for three months. On the other hand, this valuable agent has been idle for seven months of the time while there are innumerable cases who might avail themselves of its wonderful properties.

This summary is submitted with the fullest realization that a report after so brief a time is absolutely inconclusive in regard to the cure or arrest of malignancy. It is rather an opinion of the immediate results obtained, definite data requiring the lapse of years.

A number of cases presented themselves with advanced malignancy in which radium was used for palliative effect and with no thought of cure. Others were definitely malignant but of moderate extent where results might be expected and a third class were early or non-malignant conditions with excellent prospects of cure. No cases were classified as carcinoma which were not grossly evident or proved by microscopic diagnosis. The class termed potential carcinoma were not accessible for microscopic examination, being mostly small ulcers or growths about the face or neck, of long standing and of the type extremely liable if not already to undergo malignant degeneration. This latter class proved without exception very amenable to radium, disappearing promptly and completely after a short exposure. Menorrhagia and fibroids were the next group responding favorably and gave practically one hundred per cent relief. Two carbuncles yielded no results whatever, if anything being aggravated. Two cases of Hodgkins disease showed surprisingly rapid disappearance of all glands

\*Presented at the meeting of the seventh District Medical Society of Georgia, Rome, Dec. 1, 1920.



within two weeks. Two bladder malignancies are in excellent condition after six and nine months. The types which have not been successful are the advanced carcinomas of the pelvis or breast which have already traveled beyond the reach of the radium or in which metastases have occurred. All the sarcomas have been stubborn and progressive.

The radium was used in conjunction with surgery in 22 cases. In quite a few instances malignant or suspicious conditions were encountered in the course of an operation and at times as a precaution the radium was employed in order to give the patient every opportunity. It was found to be in this way a most valuable adjunct to surgery.

The same story is derived from our radium experience with malignancy as has been true with surgery, namely that the precancerous and early and accessible case is certainly amenable to radium but the neglected carcinoma remains almost hopeless.

Record of Radium cases of the Harbin Hospital from February first to December first, 1920.

Total number of cases 83.

Miligram hours of Radium 209000.

Site of lesion:

Pelvic .....	5
Cervix .....	6
Head .....	7
Face .....	26
Breast .....	5
Keloid .....	1
General .....	2
Rectum .....	1
Fibroid .....	4
Thigh .....	1
Buttock .....	1
Arm .....	1
Genitalia .....	3
Back .....	1
Bladder .....	2
Menorrhagia .....	7
Leukemia .....	1
Hodgkin's .....	2
Sterility induced .....	2
Prophylaxis .....	2
Recurrence .....	2
Cosmetic .....	1

Type of lesion:

Carcinoma .....	31
-----------------	----

Sarcoma .....	3
Hodgkin's .....	2
Potential Carcinoma .....	21
Non Malignant .....	21

Prognosis for successful treatment upon arrival.

Hopeless .....	14
Questionable .....	22
Favorable .....	47

Results:

Cured .....	47
Relieved .....	14
Uncertain .....	4
Unimproved .....	6
Prophylaxis .....	2
Dead .....	10
Carcinoma Cured .....	11

### A CLINICAL REPORT ON THE NON-SURGICAL DRAINAGE OF THE PATHOLOGIC GALL BLADDER.\*

GEO. M. NILES, M. D., and H. N. KRAFT, M. D.  
Atlanta.

Gall-bladder pathology, especially in the latter half of the human life, is almost omnipresent. In all gradations, from a smouldering, subacute cholecystitis, with its indefinite and sometimes misleading symptoms, to an acute empyema of the gall-bladder, or perhaps the presence of many gall-stones, this pathologic entity is constantly being brought to our observation and placed under our professional care.

In some instances, surgery is the only recourse, and without it, other measures necessarily fail. However, there are many individuals with undoubted gall-bladder pathology, who hesitate to invoke surgery; in some, surgery is impracticable for various reasons; and in some, surgery has been employed, but without ideal results. We may assert, therefore, that any method, non-surgical in its character, that offers aid in the diagnosis of such conditions and a rational hope of successful treatment, should be, and doubtless will be, welcomed.

In order to elucidate the principles under-

\*Read before the Medical Association of Georgia, Rome, Ga., May 4th-6th, 1921.

lying the method of non-surgical drainage, it should be known that Meltzer found that when he directly douched the duodenum with a solution of magnesium sulphate, he could cause "a complete local relaxation of the intestinal wall," though this effect was not produced when the solution first came into contact with the gastric mucosa. The practical aspect of this discovery appealed to him, for he says "It may relax the sphincter of the common duct, and permit the ejection of bile, and, perhaps, even permit the removal of a calculus of moderate size wedged in the duct in front of the papilla of Vater." He therefore, suggested testing, by means of the duodenal tube, in jaundice and biliary colic, the local application of a 25 per cent. solution of this salt.

This suggestion was quickly acted upon by several clinicians, among whom was Dr. B. B. Vincent Lyon, of Philadelphia, who has devoted much time and study to this interesting subject. Dr. Lyon now believes that the assumption of Meltzer was correct; furthermore he believes that the magnesium sulphate, thus introduced, acts as a chemical messenger, which has the ability not only to relax the sphincter of the common bile duct and therefore drain the bile in the ducts, but also, simultaneously empty its contents. He also makes the somewhat comprehensive claim in these words: "The procedure has gradually taught us that it is possible to segregate and study, cytologically and bacteriologically, not only bile from the gall-bladder, but also bile freshly secreted from the liver itself. It has taught us that we can differentiate within reasonable certainty between diseases of the various components of the biliary system, that is, that we can make a differential diagnosis between cholecystitis, cholelithiasis, and choledochitis in a more scientifically accurate manner than by any other method yet advanced."

In employing his duodenal tapping, the technic we have followed, with minor modifications adopted from time to time, is as follows: The patient comes (best in the early morning hours) with an absolutely empty stomach. The mouth should first be rinsed, either with plain water or a solution of potassium permanganate. A sterile duodenal tube, fitted with a metal tip of fairly good size, is passed

into the stomach. At present we are using the Lyon tip and find it quite satisfactory. The Rehfuß tip, or a duodenal tube with a stylette has proved of no aid in facilitating the entrance of the tube beyond the pyloric valve. After introducing the tube about twenty-four or twenty-six inches, the patient lies on the right side, and is made comfortable; for the seance sometimes lasts several hours. While waiting for the tube to enter the duodenum, warm water is frequently injected into the stomach for the double purpose of washing out that viscus and stimulating peristaltic action. The tube generally enters the duodenum in fifteen minutes to one hour, though we have had a few, who required more time, and in several it has entered in eight or ten minutes. The fluid running from or being ejected from the tube while it is in the stomach shows but little viscosity, and is generally acid in reaction. When the tube enters the duodenum, this fluid assumes a decidedly viscid appearance, and is either neutral or alkaline in reaction. Sometimes, when there is bile in the stomach, the fluid is tinted yellow, and occasionally we have noticed yellow bile flowing from the tube before any magnesium sulphate was injected; but usually none appears until a solution of this salt is applied to the duodenal mucosa. Difficulty is occasionally encountered in entering the duodenum because of vagotonic states, or pylorospasm from such possible causes as a reflex from a duodenal ulcer, cholecystitis or chronic appendicitis. This can be overcome by an injection of atropin sulphate or several days' use of benzyl benzoate. A definite and material stenosis of the pylorus would naturally prevent the entrance of the tube into the duodenum, though fortunately, we have not as yet met with such an insurmountable obstacle.

In the fasting duodenal state, under physiologic conditions, the sphincter of the common duct should be closed, and the duodenal contents should be free from bile, with a grayish tinge, nearly transparent, quite viscid, and showing a small amount of flocculent sediment. In the presence of a duodenitis, this sediment is greatly increased, and when much bile appears before the injection of the magnesium sulphate solution, we may fairly assume the presence of some pathology of group organs



physiologically related to this intestinal zone.

Once sure that the tube has made an entrance into the duodenum, we introduce by means of a 50 c. c. glass syringe about 50 c. c. of the 25 per cent. solution of the above-mentioned salt, at a little above the body temperature. The petcock of the tube is closed, and we hold the solution for about two minutes. We then open the petcock, attach the tube to an eight-ounce aspiration bottle, and gentle aspiration is begun. Usually within ten minutes bile begins to show, staining a light yellow the solution as it flows. When the color deepens, the first bottle is detached, and a second bottle brought into use. Gentle aspiration should be continued, and in a liberal percentage of cases all goes well. In some, however, the bile does not flow so freely, and more than one injection of the magnesium sulphate is required. Individuals whose bowels are easily disturbed should not receive more than 100 c. c. of the magnesium sulphate, and often other measures are required to keep up the flow or stimulate the emptying of the gall-bladder. When it is necessary, we inject several times about 25 c. c.s of quite hot water, which seems to promote the flow. Also in a number of instances, where we seemed unable to obtain a satisfactory flow of bile, we have injected about 15 c. c. of the acid solution of sodium phosphate, well diluted with hot water. This has seemed to exert a favorable effect. In several cases, also, we have injected hot water, containing 10 grains of ammonium chloride with apparently satisfactory results. This method is not a "touch and go" affair, as some seem to think, but requires both time and patience in many cases.

Observation shows that the bile flows intermittently, especially after the bile in the ducts and in the gall-bladder has been drained, and the bile is being collected as it is secreted from the liver capillaries. It would appear that the first bile obtained is that present in the ducts, probably the common duct, and is generally about 10 to 20 c. c.s. The next and much darker bile, more viscid and turbid, we may reasonably assume comes from the gall-bladder itself. When the color of the bile again becomes lighter in color, another bottle is connected, and we then obtain bile probably directly from the liver, mixed with the duodenal secretion.

The duodenal tap is usually concluded by douching the duodenum with a solution of potassium permanganate or liquor alkalinus antisepticus (N. F.), this solution being permitted to flow back out of the duodenum, though there would probably be no harm were it retained.

In many instances the different transitions of color, viscosity and turbidity have been graphically portrayed to us. In others, however, the changes have not been so noticeable nor sharply-drawn.

Let us briefly discuss some of the diagnostic inferences to be drawn from the appearance of the aspirated fluid. In choledochitis, the first bile is more viscid with flaky mucus, is turbid, and may be a greenish yellow. It may contain pus cells, epithelial cells, and perhaps some blood corpuscles.

In cholecystitis, without choledochitis, the first bile is normal-appearing, but soon changes to a grossly pathologic character, viscid, turbid, perhaps very dark, and admixed with flaky mucus. The color may vary from a deep yellow to a light yellow, but always turbid. Two of our cases showed a frankly green color, but the turbidity was there. A number of other cases gave up bile of such tarry consistency that aspiration was difficult and slow.

As to the diagnosis of cholelithiasis, we have not as yet arrived at a fixed conclusion. Lyon claims in some of his cases of cholecystitis with gall-stones present, he noted that the bile contained a sediment that was "gritty" or sand-like in consistency, which was seen microscopically to be made up of bile salts. We have observed quite a number of cases of evident chronic cholecystitis with some gritty sediment in the recovered bile, but, while gall-stones were strongly suspected, we didn't feel justified in making a positive diagnosis from such data alone.

Regarding the practical therapeutic possibilities of non-surgical biliary drainage, the outlook holds much encouragement. To predicate a positive opinion as to the ultimate possibilities of this form of biliary drainage would at this juncture be both unwise and unsafe. We feel, however, that it possesses real potentialities for good, and that to as great an extent as the rather brief time this method has been employ-



ed, we have demonstrated such potentialities.

The indications embrace such disorders as chronic so-called "bilious attacks," catarrhal jaundice, migraine, and infections of the gall-bladder, purulent or otherwise. To use the words of Dr. Lyon, "We are mechanically applying surgical principles of free drainage for infected sacs, tubes and tissues, of free drainage for catarrhal states of inflammation of various grades, but without infection, of free drainage of gall-bladders that are atonic and contain static bile in which sooner or later there develop stones or a more serious pathologic condition, and while applying surgical principles, we are doing it non-surgically, and avoiding certain surgical risks. Besides this, and even more important, we are preserving tissue which may possess a power of recovery of function beyond our present conception."

Patients suitable for this method of treatment should be selected with care and discretion. Its real and most hopeful sphere of usefulness lies in giving a direct means of treatment in early stages, or even chronic stages, before gross pathologic lesions have supervened. Removal of pathologic tissue, of gall-stones or obstructive adhesions must naturally be left to the surgeon.

Some of the limitations confronting us are those cases in which the cystic duct is obstructed, though this may depend somewhat on the nature of the obstruction and upon the relative tonicity remaining in the gall-bladder. It is hardly possible to empty the gall-bladder when this duct is mechanically obstructed by inflammatory adhesions, in states of hydrops due to swelling of the mucous glands at the neck of the gall-bladder, or when a mass of calculi fills the entire lumen of the sac.

The application of this method is not disagreeable in its entirety, nor is there any specially trying ordeal involved. None of our patients have suffered any ill effects, either present or subsequent; and many of them have been of the nervous and complaining type, so familiar to us all, but in every instance cheerful co-operation has been accorded us.

We have made up to date 286 taps on 71 patients. The most on a single patient has been twelve. We can affirm that in every one of our cases in which three or more taps have been administered, there has been a clinical improve-

ment, in some quite a marked improvement. The malaise has lessened or disappeared, the skin has cleared up, the digestive symptoms have been mitigated, the appetite has improved, in some cases the constipation has seemed relieved, and the general status has been changed for the better.

We are, therefore, presenting this process of physiologically draining the gall bladder as an aid to diagnosis, supplementing the usual clinical and roentgenologic efforts; as an alternative means of treatment when surgery is either not indicated or is not of immediate need, as a supplementary method of postoperatively continuing the surgical principles of drainage in those cases incompletely cured by surgical measures alone; and finally in that large number of intermediate "bilious cases," which have vainly tried our patience, and where ordinary therapeutic measures have been without avail.

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### RELIEF OF MENORRHAGIA AND METORRHAGIA BY ROENTGEN TREATMENT.\*

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Menstruation is a complex process influenced by many factors, ranging from undeveloped generative organs, defective endocrines and new growths down to constitutional dyscrasias. Many times deranged menstruation is a local manifestation of a constitutional condition and in some instances the pathology is not understood, which shows the futility of attempting to divide cases of abnormal uterine bleeding into distinct pathological groups.

Menorrhagia occurs most frequently at the beginning and at the end of the menstrual function. Usually the profuse bleeding of the first decade of menstrual life is due not to a demonstrable lesion, but, more probably, to a defective uterine musculature or disturbance in the balance of the internal secretions.

Menorrhagia of the second and third decades may occur with no apparent gross lesion, as in cases of polypoid endometritis or passive congestion of a prolapsed or retro-verted uterus

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or sometimes as a result of chronic pelvic infection; but the most frequent cause of excessive hemorrhage at this period is the presence of uterine myoma or polypi or carcinoma.

The treatment of cases of profuse menstruation in which no gross lesion could be found or in which only a small myoma exists is often very unsatisfactory. Occasionally young women respond to glandular therapy, such as thyroid or ovarian extract or pituitrin. Sometimes blood transfusion or injections of horse serum seem to check the hemorrhage for awhile; this, however, is usually only temporary. Curettage, which was formerly resorted to early in the handling of such cases, is seldom effective and should be left off until medical and roentgen treatment have been thoroughly tried, in which case it will be seldom used.

Horowitz has shown experimentally, that in two or three days following exposure to X-rays, the nucleus of the mature graffian follicles break down, and, in about ten days the follicle is almost entirely destroyed, which prevents the development of the corpus luteum. Kelly and Burnam consider that the decrease in the size of the fibroids and the stoppage of the hemorrhage are due to the anemia following the obliteration of the blood-vessels, produced by X-rays and the beta and gamma rays of radium. They cite cases in which fibroids have appeared after the menopause or after the removal of the ovaries. They also report two cases in which the fibroids disappeared without cessation of menstruation.

Roentgen treatment, if the proper technic is used, is in its effects upon the ovaries, one of the most certain of medical phenomena. If sufficient radiation be absorbed by the ovaries they will cease to functionate, and cessation of menstruation will be the result. In properly selected cases this method therefore becomes the safest and surest, as well as perhaps one of the most valuable therapeutic agents. However, this latter statement holds good only when it is in the hands of an expert roentgenologist; it is no undertaking to be tried by the technician or nurse who knows how to make a few roentgenograms, nor by the physician who dabbles with roentgen rays as a side line to general practice. Although we appreci-

ate the unwisdom and perhaps impropriety of promising results, we almost feel that we might safely promise the desired results to patients whom we treat, provided always that malignancy has been excluded as far as possible and that there is no inflammatory process, such as pus-tubes, present which demands surgery.

The difficulty of properly selecting cases and excluding malignancy is the only just adverse criticism of this method of treatment. We acknowledge the soundness of this criticism, but from a practical standpoint the method is not invalidated to any great degree by it. The younger the patient, the less likelihood of malignancy; but all patients should be thoroughly examined to eliminate all conditions that contra-indicate roentgen therapy. Most cases referred for X-ray treatment are of some duration and a large percentage of them will have already been subjected to curettage either as a diagnostic or therapeutic measure or as both, and, in that case, malignancy will have been found and suitable treatment instituted.

The therapeutic test, i. e., the fact that results are manifested so soon after treatment is started in properly selected cases, also helps to exclude malignancy. If there is an inflammatory involvement of the pelvic viscera as a complication or cause of the symptoms the roentgen exposures will only tend to relieve the symptoms by depressing the ovarian function so that no harm will be done. The presence of such inflammatory pelvic complications is the most frequent cause of failure of X-ray treatment to produce the desired results, and, the most common cause of recurrence following a supposed cure. If the condition treated be fibroids, the possibility of malignant degeneration later must be remembered; but, the probability of such change is rather remote, except in the case of a large soft myoma, and in such cases we always advise surgical intervention, unless there is some very definite contra-indication.

The fact that the cessation of the ovarian function as produced by X-ray treatment is gradual, and that under improper technic there



does occur a re-establishment of ovulation and menstruation, after a lapse of a varying length of time, brings up the question of the possibility of fertilization of an ovum, which has been influenced by the X-rays. Experiments tend to prove the possibility of the birth of a deformed or degenerated off-spring under such conditions, but such a condition has never been reported. If conception should occur under such circumstances, it would in all probability terminate in abortion, and, as above stated, such a condition might occur only in the case where improper technic was employed.

It will usually be found that a safe working rule is, if one period has been missed, all treatment may be discontinued, for it is almost certain that even though there may be an occasional show, a permanent cessation of menstruation will result. If the case be one of Metrorrhagia or Menorrhagia in a young girl, the dose is much reduced and the intervals lengthened so as to lessen the flow, but not to entirely stop it. By very careful dosage and long intervals, to allow plenty of time for the full therapeutic effects of the rays to manifest themselves, this happy result may often be produced; but the slightest mis-judgment as to the dose may bring about permanent cessation of ovarian function.

For a long time roentgen therapy was used only in the treatment of menorrhagia of the menopause in cases which presented no gross pelvic lesion and in those cases presenting a fibroid, but with definite contra-indication to operation. Later the types of cases treated by this method have been increased, and it is now considered by many to be the method of choice in all cases of menorrhagia of the menopause, in which the presence of carcinoma is definitely excluded either by the history or by a diagnostic curettement, and in those cases not presenting a large, soft myoma which is likely to later undergo malignant degeneration. It is also used in cases of menorrhagia, or metrorrhagia, of young women, when there is a small mucous fibroid, when no gross pathologic condition is demonstrable and in cases presenting a large myoma in which there is a definite surgical risk.

## THE IMPORTANCE OF EARLY DIAGNOSIS OF INTRACRANIAL LESIONS.

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Among the many advances in medical science in the past decade, none has been more startling in its various phases than neuro-surgery which has at last become so developed that definite cures of what in the past have been looked upon as absolutely hopeless conditions are constantly being effected. Brain and spinal cord tumors can be successfully removed; tic douloureux can be absolutely relieved; eyesight can be saved and, in some cases of blindness, can be restored; cerebro-spinal syphilis can be improved and often cured; the regeneration of paralyzed nerves can be brought about; many distressing symptoms due to incurable lesions of the nervous system can be alleviated; severe cases of brain injury can be saved. Concrete cases might be cited to prove the truth of these statements; however, my purpose is to bring a small message of hope, rather than a report of cases.

Surgery with the aid of the neurologist, the roentgenologist, the ophthalmologist, the otologist, and the clinical pathologist, has accomplished wonders within the past decade in the treatment of so-called surgical disorders of the nervous system. There are very few areas of the brain or spinal cord which can not be approached accurately and with a fair degree of safety. Dandy's recently published method of depicting on the X-ray plate the size and shape of the lateral ventricles after air injection will give an accurate localization of cerebral tumors in practically 100 per cent of those cases where a systematic neurological study fails to locate the lesion. After the tumor has been located, perfected methods of approach can be employed and its removal effected, provided the tumor is not of an infiltrating character, and the patient has been brought to operation early enough.

Why then, you may well ask, do we constantly hear of so-called incurable surgical disorders of the brain? It is the experience of those pri-



marily interested in this field of surgery that the great majority of patients come to them too late to be cured by operation or other measures. The responsibility for this rests not on the neurologist, the surgeon, the ophthalmologist, etc., but rather upon the general practitioner who is first consulted and on whose advice the subsequent character of treatment depends. Unless he cultivates a certain interest in neurological matters and keeps in mind the ever present possibility of lesions of the nervous system, very many of these unfortunate individuals will continue to reach the advanced stage of brain damage which precludes the possibility of permanent relief.

There is an unwarranted idea among many physicians that the subject of neurology is one of such intricacies and so devoid of successful results that little can be accomplished by giving it much time and consideration. I do not mean to argue that the general practitioner should become an expert diagnostician of neurological problems. Such is hardly possible when he sees only a limited number of patients with neurological manifestations, hemmed in as it were with a mass of varied medical problems which constitute the bulk of his practice. Nevertheless there are certain symptoms which should always suggest at least the possibility of some neurological disorder, and the physician is not giving his patient a square deal unless he satisfies himself beyond all shadow of doubt that such is not the case. Every city of any importance harbors groups of men who are devoting their entire time and study to the question of the accurate diagnosis of obscure pathological conditions, and it is the duty of those whose time is over-filled with the multitudinous phases of general practice, to call on these men of more specialized tendencies in all such cases of doubt.

There are a few fundamental facts which should be constantly kept in mind by all of us, no matter what may be our own particular medical interest.

One word in regard to the unfortunate and at times dangerous habit of instituting a prolonged course of anti-syphilitic medication before making a definite diagnosis of cerebrospinal lues. A focalized syphilitic lesion of the brain is much more rare than is neoplasm, in spite of the rather prevalent idea that gumma

of the brain is the more common of the two conditions. This misconception is responsible for the fact that many tumors of the brain are allowed to make tremendous headway before being properly diagnosed and thereby cause the patient's chance of operative relief to be sacrificed. Granting that it is justifiable to treat a patient for syphilis in the absence of a positive Wassermann reaction (the wisdom of which is extremely doubtful), three weeks of intensive medication should be sufficient time to determine the efficacy of such treatment. If the patient does not then show clear-cut improvement in the symptoms, another diagnosis must be sought.

A tragedy which recently came under my observation will serve as an illustration of the danger of such "hit or miss" method. A young man 23 yrs. of age began to complain of headaches in November, 1919. In January, 1920, he became totally blind. For three months he was given salvarsan and mercury, in spite of the fact that his blood was negative to the Wassermann test. In May, he was referred to me by Dr. Calhoun, under whose observation he had just come. At this time he was totally blind, his discs measuring 7 diopters of swelling. A decompression was done in an effort to save his eyesight. Ventricular fluid obtained for examination gave a negative Wassermann. In spite of the rapid disappearance of the choked discs the boy continued to remain blind, on account of a secondary atrophy, caused partially no doubt by the long standing swelling and also probably by the deleterious action of the arsenic on the damaged optic nerves. Other similar tragedies could be given, but this one I trust will suffice.

Although there are many intracranial lesions which do not present the classical symptoms of increased intracranial pressure, namely, headaches, vomiting, and disturbance of vision, yet too much emphasis can not be laid upon the importance of becoming suspicious of grave brain disease when any one of this triad presents itself. It is surprising to learn how many patients are treated for various stomach disorders and the like, who have all three of these important symptoms; whereas any one of them should suggest first a brain lesion, and the burden should be upon the attending physician to

prove or have proved beyond all shadow of doubt that there is no brain lesion before instituting treatment. A few months ago, I removed a tumor the size of a hen's egg from the cerebellum of a child six years of age, who had been treated for two months for so-called acidosis, in spite of the presence of headaches, vomiting, and rapid loss of eyesight. Had not an alert young practitioner been finally consulted, I dare say this treatment would have continued to the bitter end. The physician responsible was no quack, according to our conception of this term, but a general practitioner with a large and lucrative practice, and, strange to say, of splendid professional reputation.

Another cause of the *too* late diagnosis is due to the prevalent idea that the above triad of symptoms *must* be present before the diagnosis of brain tumor can be made. Many brain tumors replace instead of displace brain tissue, and subsequently may never give rise to the symptoms of increased intracranial pressure. Such cases must manifest themselves through so-called focal symptoms. As a matter of fact, many brain tumors will continue to be suspected too late to be cured, unless these focal symptoms are properly appreciated. They may be among the first of the symptoms encountered, especially in circumscribed cortical tumors. Localized twitchings of muscles should invariably arouse suspicion. Chronic ringing in the ear is one of the very first symptoms of cerebellar pontile angle tumor and may be present months before other symptoms appear. The *aurae* of generalized convulsions may be of such constant character as to point conclusively to the exact area of primary brain involvement. There are characteristic *aurae* of smell and taste which place the lesion in the temporal lobe. The presence of half vision, the loss of motor speech, the loss of ability to recognize objects either through sight or tactile sense, the tendency to joke or be facetious to an abnormal degree, dizziness and tendency to fall, abnormal tremors, staggering gait, etc., are but a few of the many symptoms which should cause one to suspect strongly the presence of some grave intracranial disorder.

In conclusion I wish again to emphasize that neuro-surgery offers permanent relief in many

disorders of the nervous system; that the chances of such relief are too often sacrificed by the tardy recognition of the trouble; that prolonged antisyphilitic treatment in the absence of positive evidence of syphilis is unwarranted and dangerous; that chronic headache, vomiting, or disturbance of vision should suggest immediately the probability of an intracranial lesion; that in the absence of these symptoms of increased intracranial pressure there are various focal symptoms which indicate grave brain disease; that with systematic neurological study and the use of ventriculography, when indicated, cerebral tumors can be localized in practically 100 per cent of cases; and finally, that unless the general practitioner learns to suspect intracranial disorders in their incipency, the lives of many patients will continue to be sacrificed.

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### FRACTURE OF THE SHAFT OF THE FEMUR.\*

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KENNETH McCULLOUGH  
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This type of fracture is comparatively rare, statistics showing it to constitute but 3 per cent of all fractures. It is also stated that  $\frac{3}{5}$  of them occur near the middle of the bone, the remaining  $\frac{2}{5}$  being divided between the upper, and lower thirds. In the nine cases presented below, however, it will be noted that five were of the upper third, and two each of the middle, and lower thirds.

While fracture of the shaft of the femur may be due either to direct, or indirect violence, or muscular action, all of our cases were caused by direct violence, such as falling from cars, or car wheels passing over the leg.

In the treatment of these fractures, there are several anatomical features which must be considered. The shaft of the femur acts as a lever, which is worked by the heavy thigh muscles, having the hip joint as its fulcrum, and when this lever is broken, owing to the heavy pull of these extremely strong muscles, there is great displacement of the fragments. In fracture of the upper third, the upper frag-

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ment is usually displaced either outward or forward, or both, while the lower fragment is drawn upward, and inward by the action of the adductor group. There is also frequently outward rotation of the upper fragment due to the action of the psoas. In fractures lower down, the lower fragment is usually drawn backward by the action of the gastrocnemius.

The diagnosis of these fractures is of course obvious, and I shall not enter into a discussion of the symptoms except to state that we have always found numerous X-ray plates from all angles to be indispensable.

During the past few years, the treatment of these fractures has been variously modified, and numerous experiments of one sort or another have been made. However the greatest step forward was of course the open method with internal fixation either by bone grafts, inlaid, or placed in the medullary canal, or the use of plates, wires, etc. There have also been several modifications of the extension and weight method, notably the so-called "ice tong" method which is especially adapted to treatment of fracture of the lower third, and which consists in the use of the inclined plane with traction made at the knee either by means of a spike driven through the condyles, or an apparatus shaped somewhat like a pair of ice tongs, the sharp points of which were fastened into the condyles on either side. This method gained great favor during the war, and its advocates seemed very enthusiastic over it. We have never attempted to use it however, as we have never seen the advisability of needlessly inflicting a wound on an already injured leg, and we have found that where traction has been indicated, the good old method of fastening the extension apparatus with adhesive plaster has been satisfactory.

One of the most important factors in the treatment of these fractures is the hospital. All fractures of the femur are hospital cases, and we owe it to ourselves to insist upon the removal of the patient wherever it is practical to do so, and nowadays when so many hospitals are available, it is so seldom that one cannot be found within a reasonable distance.

We have found that immediately upon admission of a case of this kind, it is best to do

nothing except immobilize the leg and hip temporarily, and make the patient as comfortable as possible, and for this purpose, the Hamilton side splint has proven the most practical. It is our custom to wait at least a week, and usually ten days before attempting any sort of reduction. This allows the swelling to subside, and also allows the injured tissues to recuperate. In the mean time, the fracture has been X-rayed, and its character determined, after which the method of treatment to be followed is decided upon. We have decided that fractures of the upper third are more easily reduced by traction and counter traction than those of the middle and lower thirds, though this method of reduction is applied to all of our cases first.

The patient is anaesthetized, the body is elevated at buttocks and shoulders, and strong traction and counter traction made by several assistants, at the same time, manipulating the fragments, and endeavoring to get them in apposition, measurements being taken to determine the amount of success obtained. If it appears that the fragments are in good position, the leg is put up in abduction in a cast extending from the foot to the costal margin, and as soon as the plaster is hard enough another picture is taken. If the ends appear to be in good position, the cast is left intact for a period of six weeks by the end of which time there is usually good union, and the cast can be removed. Immediately after removal of the cast, the skin is cleansed thoroughly, and rubbed with alcohol, after which the knee, and hip are massaged twice daily with olive oil, and after a few days, massage of the thigh muscles with faradic current is started. This rapidly overcomes the stiffness of the knee joint incident to long immobilization, and also brings back to normal the atrophied thigh muscles. As soon as possible after the removal of the cast, the patient is allowed to be up on crutches, and by the end of the 9th week is usually able to walk with the aid of a cane.

In fractures where the above method has been tried without success, after waiting several days, operation is the next procedure, and in this connection, it is well to state here that the ideal method of open treatment is by means of ped with one of these, so we are compelled to rely upon plates, wire, or kangaroo tendon. In



fractures of the shaft, we have always used the heavy Lane six screw plate, though in one case this was reinforced with silver wire.

Too much emphasis cannot be placed upon the importance of technique in these cases, and a very slight break can undo the most painstaking work. Our method of preparing the field is as follows. The entire thigh is shaved, if possible the day before operation. At the time of operation, the thigh is scrubbed with soap, and water from the hip to the knee, carefully dried with ether, and given two coats of iodine.

The incision is made along the outer side, guided by the site of the fracture, care being taken to make a good exposure. The fascia, and muscles are then divided, and as the vessels, and nerves lie well to the inner side of the leg, there is no danger of injuring them. The fracture having been reached, the periosteum or as much of it as can be saved is carefully retracted, and the ends of the fragments exposed. This is usually the most difficult part of the operation, and it is here that care must be taken to avoid injuring the vessels while manipulating. The ends of the fragments are then freed, and the fracture reduced, and for this purpose, the Lane forcep is the best, though the ordinary lionjaw forcep will answer. With a little patience, the fragments can usually be replaced in the line of the fracture, provided it is not too badly comminuted. If there are any loose fragments which are unprotected by periosteum, they should be removed, as there is danger of their forming a sequestrum. After clearing the ends, and before attempting to fit them together, they should be freed from all debris, and thoroughly curetted, and in fitting them together care must be observed that there is no rotation which will produce deformity. They are then held in place with a bone clamp, and the plate applied, one usually being sufficient, though in heavy subjects, it is best to use two. In closing, care must be taken to save as much periosteum as possible, suturing it with chromic catgut. The muscle fibres are then loosely approximated with plain gut, the fascia with chromic gut, and the skin with interrupted silkworm gut sutures. It is always best to place a small gutta percha drain down to the bone to allow the escape of blood, of which there is usually more or less discharge

for the first few days.

After applying a light dressing, the thigh is immobilized in a body cast, care being taken to bring it well down over the foot, and support the toes in order to prevent toe drop. A window over the site of the incision is then marked out, and as soon as the plaster hardens sufficiently, the leg is X-rayed. The window is cut out on the second day, and the dressing changed. This should be done every other day, and if there is no infection, the drain can be removed on the fourth day. The sutures should be removed on the seventh day, after which there is little to do but wait for union to occur, usually six weeks, at the end of which time, the cast is removed, and the same measures instituted to overcome stiffness of the knee joint, and bring back the atrophied muscles as have been described above. Ordinarily these cases can get up on crutches as soon as the non-operative ones, and complete recovery requires about the same length of time.

The plate in these cases can usually be allowed to remain, occasionally, as in one of ours in which a faulty screw loosened, they have to be removed. Ordinarily, however, they are covered with periosteum, and callus, and do not cause trouble.

In conclusion, I would like to present very briefly the following cases. The results in several of them leave much to be desired; however, taken as a whole, it would seem that they at least equal the average. Two of them were discharged with no attempt made at correction, for reasons which will be stated later. One case, where an operation was unsuccessful had an inch and three quarters shortening, and two had three quarters of an inch. The remainder secured good union with no shortening. The double fracture represents the successful result of both the operative, and the non-operative treatment, and as he has kindly consented to appear here today, you can see for yourselves his condition.

Case 1. Male, negro, passenger, aged 47. Stepped off a moving train July 14th, 1918, sustaining a fractured left femur. He was treated at his home by means of extension, and weights until Nov. 21, on which date he was admitted. Examination revealed a fracture of the lower third of the left femur with marked over-riding

of the fragments, and nearly four inches shortening of the leg. Firm union had occurred in this position, and on account of his age, and the fact he had a bad chronic bronchitis, as well as the fact that at that time, the influenza epidemic was at its height, no operative measures were undertaken.

Case 2. L. O., male white, section laborer, aged 21. Admitted Aug. 3, 1919, having been injured the day before when a lever car ran over his leg. Examination showed a fracture of the middle third of the right femur with marked displacement, and over-riding. After three attempts at reduction, the fragments had gotten in fair position, cast applied, and the treatment as outlined above carried out. Good union occurred, though the leg was three quarters of an inch short. Discharged 11/8/19.

Case 3. C. N., negro brakeman, aged 34, gave a past history of syphilis one year prior to accident. Was injured Oct. 7, 1919 when he was knocked from a moving train, sustaining a badly lacerated scalp, as well as a traumatic amputation of two toes of the left foot. Right femur fractured at middle third. His other injuries were repaired, and the injured leg placed on a Hamilton splint temporarily. Later, reduction was attempted, with the result that he got good union with three quarters of an inch shortening. Discharged 11/24/19.

Case 4. L. D., negro fireman, aged 32. Admitted 10/22/19. Had jumped from a moving engine the day before. Examination showed a fracture of the right femur at the upper third, with bad shortening. After two attempts at reduction, the fragments were found to be in good apposition. He was given the usual treatment, and discharged 3/12/20 with no shortening.

Case 5. E. S. H., white conductor, aged 47, admitted Aug. 5, 1920. Gave a history of having fallen from the top of a box car on May 8, sustaining a fracture of the left femur. He was treated at home by means of extension, and weights until the date of his admission. Examination showed a spiral fracture of the upper third of the left femur with two and a half inches shortening due to overriding, and firm union had occurred in this position. His urine showed the presence of a large quantity of albumin, as

well as hyaline, and granular casts, and on this he was not subjected to the risk of an operation, but was fitted with a brace, and discharged 8/12/20.

Case 6. F. S., negro station porter, aged 43. Admitted 2/14/18, giving a history of having fallen from a second story window two days before. This case was treated by means of extension and weights for five weeks, at the end of which time, he was found to have no union. The fracture was then cut down upon, reduced, and plated, and apparently had a good result. He was given the usual after treatment, and several days after removal of the cast he developed a sudden bowing of the injured leg, with noticeable shortening, and X-ray examination showed that the upper end of the plate had loosened, necessitating its removal. Upon removing the plate we found that the trouble was due to a faulty screw, which had come loose. The plate was removed, and the leg put up in a cast again, after which union occurred, with an inch, and a half shortening. Discharged 9/1/19.

Case 7. J. J., white section laborer, aged 17. Admitted July 6, 1918, giving a history of having fallen from a motor car. Examination showed a fracture of the lower third of the left femur with marked displacement, and over riding. An attempt at reduction was unsuccessful, and open treatment was decided upon, which was carried out two weeks later. The fracture was cut down upon, reduced and plated, after which he made an uneventful recovery, and was discharged 9/20/18 with no shortening. The last report had from this case was on 10/25/20 at which time, he had to all intents, and purposes a normal leg, the plate which had been left in place, was causing him no trouble.

Case 8. J. T., white section laborer, admitted 2/26/19, gave a past history of having been injured on 2/11/19, by being run over by a motor car, and having been treated at another hospital until date of admission. Upon examination he was found to have a transverse fracture of both femurs at the junction of the upper and middle thirds. An attempt at reduction proved successful with the right femur, but the left could not be corrected, and was operated upon 3/23/19. The fracture was reduced



and plated, after which he made an uneventful recovery, and was discharged 6/16/19 with no shortening in either leg.

References: Proston, "Fractures and Dislocations," page 558. Da Costa, "Modern Surgery," page 602. Gray's Anatomy, page 229. Johnson, "Operation Therapeutics," Vol. II, page 248. Oxford Surgery, Vol. I, page 701.

### **A NEW NAVAL BAND AND BETTER WAY OF PUTTING A DIAPER ON A BABY.\***

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Atlanta, Ga.

Mr. President, Ladies and Gentlemen:

It has been some time since I have had the pleasure of appearing before you, but we learn that recent statistics show less than 20 per cent. of the American people are really healthy, 45 per cent. or more are suffering from some form of serious malady, annual deaths, 1,500,000; bed ridden cases, 3,000,000; persons whose vitality ranges between 30 and 70 per cent. 45,000,000; those affected with minor defects, 37,500,000; and the actually healthy, 19,500,000.

In the "Zone of Impairment" would be found nearly 1,000,000 cases of tuberculosis, not yet bed ridden, but going about, most of them, "sowing the seed of death in new soil," also "many of the 2,500,000 cases of venereal diseases that develop annually," and from 2,000,000 to 3,000,000 cases of hook worm and malaria. These statistics presented by Dr. M. L. Rankin, President of the American Public Health Association to the Association of Life Insurance Presidents in New York, is enough to make us all shudder, and work the harder so as to bring about a better condition of affairs.

I am here to speak to you on what may at first appear just a trivial matter but which I hope you will all decide is really an important one. Certain it is one to which I have given long and careful thought and

which I hope will appeal to you also as being well worthy of your attention.

I refer to the dressing of the new born infant and more especially to the adjusting of the very necessary band and diaper, the former being better known as the binder. This binder I will speak of first, as I believe I can easily impress you with the necessity of changing the old method of encasing the infant in a band tight enough to stop its breathing almost, and certainly tight enough to be desperately uncomfortable. I have seen many babies swathed in a heavy flannel or linen binder when all that is really needed for the first three weeks or less, is a bandage which will safely keep in place the navel dressing. After much experimenting I have at last found a perfectly sanitary, safe and satisfactory binder and one which is simple, practical and inexpensive. Too often we find a child suffering apparently from a severe colic when the condition is caused merely by a too tight binder and an uncomfortable diaper. I can safely say to you that I have discovered the ideal binder which should be made of a piece of elastic stockinet, four inches wide and cut so as to fit snugly around the abdomen. This bandage is called the "Ace"; it is snug, safe and comfortable; the elasticity enables it to keep in shape and it is sanitary and easily laundered.

The method of making this binder is very simple. To secure absolute accuracy, take the measurement of the child's abdomen across the navel, and then cut the bandage from one and a half to two inches smaller than this measurement; this insures a perfect fit.

Of course the naval dressing needs no bandage after the first month at most, and at that time I usually advise the use of the abdominal band suspended from the shoulders, but until it is possible to use such a band, the elastic bandage is, or should be, a necessity. Neither pins nor buttons are needed with these binders, but merely the piece of cloth, four inches in width, cut to the measurements just mentioned, and then joined together with what is called a flat

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seam, or one that is either machine stitched, open on each side, or "cat-stitched" down the middle. This seam makes no apparent impression in the soft stockinet and merely adds to its strength. Such a binder should be adjusted by putting the infant's feet through, thus avoiding undue stretching, and at the same time enabling the naval dressing to be kept in place. I cannot urge too strongly a careful consideration of this sort of binder, and I believe one trial will convince physicians as well as mothers, of its practical usefulness.

But I have yet another radical change to advocate in the dressing of your infants, and again you may think at first that this change also is too trivial to be considered by a physician. But I hope to convince you that I am not an extremist in urging every mother to change her old time method of adjusting her baby's diaper. I well know that for generations this article of dress and its adjustment was left solely to the mother or nurse, but I know too, that I have many times seen the soft skin of a baby's abdomen circled by a tense red line where the diaper had been ruthlessly pulled around the little form with but one idea in view: that of personal neatness. Now no one could be a stronger advocate of neatness than I am, but I am glad to say that by using the method I will suggest you can preserve the most extreme idea of neatness and at the same time safe guard your baby's health and future usefulness.

I wish I could claim to have "invented" this new method, but all the credit I **can** claim, if credit of any sort there is, is that of recognizing the possibilities involved in a suggestion which came to me through a Chicago woman who brought her baby to me for treatment. When I took the rectal temperature of the little one I was instantly attracted by the novel method which the mother had used in adjusting the child's diaper. Instead of the usual plan of folding the diaper in a triangle with the point pulled upward and the ends fastened tightly around the waists, this mother had folded the napkin in a long strip and had cut the cloth

almost square, but a little longer than wide. Two safety pins were used; one on each hip of the child, thus securing the bandage comfortably, perfectly and at the same time affording the protection needed and absolutely avoiding undue pressure on any organ or set of organs. I asked the mother immediately why she used this method; her reply was that it had seemed to her "more comfortable," and at once my mind was busy as to the many reasons why this should be exactly true. "More comfortable," I thought "in every way; not only for the child at the moment but for the physical health of the adult of the future."

Think, my friends, for a moment of the added comfort of a little child relieved of a tight binder across the lower abdomen where originate so many intestinal disorders, disorders which might well be produced by this very tightness of the diaper. Gas very often forms after the napkin has been adjusted and the distention and pressure could easily become acutely painful.

Yet another point occurred to me in this connection; the majority of people are right-handed and for this reason a sharp pull is given from the left toward the right side when the napkin is adjusted and as this brings pressure directly over the sigmoid, which is found on the left side and which holds the fecal matter until expelled, the pressure here and over the lower part of the abdomen is no doubt one of the main causes of intestinal stasis in infants, for it is a fact that seven out of every ten infants, whether fed at the breast or artificially, are constipated.

We have already discussed the dangers of the tight binder and it is safe to assert that the combination of the tight binder and the torturing diaper form an absolutely cruel method of dressing an infant and yet one as universal as infancy itself. Not a few mothers want the diaper and the binder to fit as tightly as a corset and here we have a combination of pressure quite as unnatural as the foot binders of the Chinese or the iron stays of the days of "Good Queen Bess," and certainly a thousand times more dan-

gerous to the soft tissues of the child.

For many months I carefully investigated the texture of the bones of the pelvis in infants and I have found these bones quite as pliable as the other bones in an infant's body. Parvin, an authority on diseases of women, in an old work, and also some of our most modern authorities, tell us that the pelvic bones in early life are composed of three bones and, that the ossified union between them is not complete until the subject is eighteen or twenty years old. These same authorities state "that just as no two human faces are alike, no two pelvis can be found which do not present some differences, and in addition to this, it is further claimed that no pelvis is perfect in symmetry and form or normal in measurements." But it is difficult to state positively that our infants are born with these pelvic differences, and even though the sacrum and coccyx complete the pelvis posteriorly, my conclusion as to the possible effect of the napkin would not be altered. From all of this, therefore, we can see that by making greater pressure on the left side than on the right it would unbalance the normal pelvis even if the bones were normal, and more so if diseased in any way, as for instance if they were rachitic. In considering the effect of the misused diaper we must remember that it is a bandage worn twenty-three hours out of the twenty-four and in a majority of cases until the infant's eighteenth month, while it is not unusual to find this garment on a child two years old.

Neither the bladder nor the uterus takes its proper place in the pelvic cavity until the child is at least six years old; hence during the entire period when the diaper and the binder are used the unnatural pressure is a menace; in fact until the 25th year, danger may exist, for not until that time is the bony union complete.

We might well retrace our steps a little and learn a valuable lesson from our Indian forbears. The Indian papoose has a diaper, it is true, but it is a garment of soft cloth

and this cloth is rolled around the Indian infant; it is not even pinned in any one place, but the baby's entire body is left as Nature intended it to be, comfortable and straight and unhampered by any of the artificial dressings which have been adopted by modern society. Who shall say that much of the female health and strength among the Indian tribes is not due to this very cause? Certain it is that Indian women bear children easily; instrumental delivery among them is almost unknown, they seldom have any form of pelvic disorder, and research shows that the Indian woman dresses loosely from infancy to old age, that her health is proverbial and there **MUST** be a reason for it.

My friends, may it not be possible that the very question I am discussing may furnish an explanation of this? The out door life which the Indian woman leads, the hard work she does and the coarse food she eats could not furnish the reason. It must lie in her manner of dressing, and while I do not advise our women of to-day to give up a right fitting, correctly supporting corset, I do most strongly urge that the soft bones of our infants be left unhampered. I do insist that there is some fundamental reason for much of the discomfort, danger and disease so prevalent in our social life to-day. Neatness in woman's dress is an essential; neatness in caring for our infants is equally necessary, but neatness and health are absolutely compatible whether in our infant or in the adult.

Let us consider just a little more carefully the conditions produced by the old method. We must remember that the fundus of the uterus is on a line with the anterior superior spinous process; that the bladder when full rises a little higher, and that when you put on a baby's napkin, tight or loose, and pin it in the center with a large safety pin and sit the child up, imagine what takes place underneath the artificial bandage; especially when, as often happens, the long ends of the triangle are



knotted and forced underneath the front point; this latter practice makes a hard lump pressing deep into the lower abdomen and it would be wonderful indeed if deformities did not result from such a condition. I say again, I believe they DO result and there are many minor ways of proving it. For instance, I have heard a fashionable dress maker as well as a popular tailor, state that the female form is found to be larger on the right hip than on the left in seven out of every ten cases. This is more noticeable in females where garments are fitted more carefully over the hips than in males, but if this is a fact why might it not result from the pressure brought to bear on the left side in infancy, thus preventing its normal development, while the right side, unfettered, grows to its full size? You know, I am sure, how common uterine and other pelvic displacements are; possible you may have heard it said, as I have, that these disorders are "congenital" but are they? Why might not these harrassing and serious troubles result from the very condition we have been discussing, and why if this is even possible, cannot we begin at once to prevent such deformities in the future? I know it is a new idea, but when we remember that there are being presented even now revisions of the Bible itself, surely we can safely venture to consider revisions and reforms in our dressing of infants.

I am anxious to show you exactly how to adjust the napkin in the new, and what I deem the safe way, and in order to do this, I had these pictures taken to illustrate the method.

The pictures almost tell their own story, and it is truly encouraging to note the ready acceptance of the new method which has been accorded by nurses, doctors and mothers wherever and whenever it has been explained to them.

## AN ANALYSIS OF THE CAUSES OF VOMITING.\*

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Vomiting is a symptom of a great variety of diseases, and must be differentiated from mere regurgitation. The latter is common in infants, and even some adults can develop the habit, especially those who are of a nervous temperament and those who swallow a great deal of air with their food. True vomiting can be produced by some people on the slightest provocation, while on the other hand some people never vomit. In cases of gastric neuroses where vomiting is often so easily induced, the patient can often be taught to control the act.

The mechanism of vomiting is quite complex, but there are three chief factors in its production. The cerebral type includes many reflex causes prominent among which are pain, fright or other strong emotion. Toxic vomiting includes vomiting of pregnancy, cyclic vomiting of children, migraine; hyperthyroidism is also in this class. The vomiting occurring in *tabes dorsalis* is cerebral in origin.

Pharyngeal irritation is the second prominent factor in the production of vomiting, and the most common example of this type is alcoholism.

Certain gastro-intestinal lesions are responsible for many cases of vomiting, and the chief conditions of this type are acute or chronic intestinal obstruction, intestinal neoplasms, acute appendicitis, and strangulated hernia.

We may therefore classify all our cases of vomiting under two chief heads:

I. Disturbances of the Gastro-intestinal tract.

II. Disturbances of the Nervous System.

I. Disturbances of the Gastro-intestinal tract.

a. Oesophageal obstruction. This may be due to a variety of such as esophagismus, cicatrix, congenital or acquired, carcinoma, diverticula, external compression, all of which possess individual characteristics, and in addition certain features in common. For example,

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liquids cannot be swallowed fast but only in small sips. The material which is regurgitated contains a large amount of ropy mucus. Food is vomited within one-half hour after eating. Aspiration by a tube in the oesophagus will always bring up food, especially if diverticula are present. By fluoroscopic examination we can determine if food passes the cardia. In view of the facts it is of the utmost importance to watch patients eat if their chief complaint is vomiting.

b. Organic Disease of the Stomach Walls and Orifices.

1. Gastritis.

a. Acute. Is due to indiscretion in diet such as excessive intake of alcohol, excessive smoking or irritating food. The stomach is greatly inflamed and rejects everything even water. Vomiting is quite painful, and may last 2-3 days. The vomitus contains food recently eaten.

b. Chronic. Is primarily only in alcoholics but is usually secondary to chronic stomach congestion, as in liver cirrhosis or general congestion from cardiac decompensation. In the latter case the vomiting is brought on by exertion, and a careful examination of the heart reveals the lesion. When compensation improves, the vomiting stops.

2. Gastric ulcer.

Is characterized by vomiting which occurs at the height of the chemical distress. The act of vomiting relieves the pain and often can be induced by the patient himself.

3. Gastric Carcinoma.

Vomiting is always preceded by nausea and is independent of food-taking. Cases of carcinoma occur usually after forty years of age, and show, in addition to the vomiting, blood in the stools, anacidity, and blood in the vomitus.

4. Cardiac Obstruction.

Is not characterized by true vomiting but only by regurgitation. The most frequent lesion in this location is a gastric or esophageal carcinoma which blocks the cardiac orifice.

5. Cardiospasm.

Is a condition which is more common than usually supposed, but frequently the condition is missed because we do not watch the patient eat. These cases, too, are not real vomiting but are cases of regurgitation. By giving the patient

several glasses of barium milk and watching the progress with the fluoroscope, the barium can be seen to descend to the cardia and remain there a while until the cardia relaxes and allows it to enter the stomach. By the careful passage of a bougie, an unusual sense of resistance can sometimes be felt at the cardia. The exact etiology of this condition is not known, but it is nevertheless a clinical entity.

6. Hour-glass Stomach

Is a condition which may be caused by the cicatrix of an ulcer, uncommonly by scirrhus carcinoma, and rarely by outside adhesions. The nature of the vomiting depends on the location of the cicatrix. If this is at the cardia, there is merely a regurgitation; but if it is at the pylorus, it is that of pyloric obstruction.

7. Pyloric Obstruction.

In lesions at the pylorus the vomiting is not frequent but when it does occur, enormous quantities are ejected at one time.

8. Ileus. Is marked by pain, distention, visible peristalsis, and some times a tumor mass. Vomiting in cases of ileus is bilious or fecal.

II. Disturbances of the Nervous System.

a. Organic disease of the Central Nervous System.

1. Tabes dorsalis. Is the most important condition affecting the nervous system so as to cause vomiting. In all suspicious cases, a Wassermann both on the blood and spinal fluid is of the utmost value.

2. Meningitis. It is also a very important cause of vomiting due to a disturbance of the nervous system. Other symptoms of meningitis are usually present and an examination of the spinal fluid will often make the diagnosis. In cases of tuberculous meningitis, the onset may be sudden with severe and protracted vomiting, usually accompanied by headache, chills and fever.

3. Brain tumor or abscess. Shows signs of increased intracranial pressure, and the eye findings in such cases are often of diagnostic value. Vomiting may be projectile and is independent of food taking. It is frequently very severe.

4. Cerebral hemorrhage. Is frequently accompanied by vomiting, and the hemorrhage may be spontaneous as in apoplexy or may be

the result of a skull fracture. In such cases, the associated findings make the diagnosis.

### 5. Cerebral concussion.

b. Reflex, through stimulation of peripheral nerves by anything producing severe pain. Almost any acute condition of the abdomen may first manifest itself by vomiting, but the most important conditions of this sort are acute appendicitis, strangulated hernia, and peritonitis. Next in frequency and importance come acute intestinal obstruction, renal colic, gall stone colic, epigastric hernia, and pelvic disease such as incarcerated uterine fibroids, diseases of the adnexae.

c. Toxic vomiting through irritation of the vomiting center.

#### 1. Infections.

##### a. Acute.

1. Measles and scarlet fever in children are often ushered in by an attack of vomiting. In such cases it is well to be on guard for the appearance of a rash for this is what usually makes the final diagnosis.

2. Pneumonia, typhoid, and sepsis in adults frequently make their appearance with vomiting. The course of the temperature in such cases along with the clinical findings in each case must be relied upon to make the diagnosis, as there is nothing distinctive in the nature or type of the initial vomiting which would in any case characterize any one of these diseases.

3. Catarrhal jaundice. May sometimes present a picture of vomiting associated with other gastro-intestinal symptoms, with often only a very slight icterus. In some cases there is soreness in the gall-bladder region, and this of course, when present is of considerable diagnostic moment.

##### b. Chronic.

1. Pulmonary tuberculosis is often marked by attacks of vomiting which are not at all characteristic. Upon careful inquiry into the history, other evidences of pulmonary tuberculosis can be found. In any event physical examination and the X-ray make the diagnosis.

#### 2. Tertian Malaria.

May be marked by vomiting, but this, however, is in no wise typical. In all suspicious cases, a careful blood examination is necessary.

### 3. Intoxications.

a. Acute. Ether and chloroform both may produce vomiting, but in their cases there is a history of operation.

b. Chronic. Uraemia may first be manifested by vomiting. Such cases are associated with edema and albuminuria, and other evidences of a kidney lesion. Diabetes and nephritis are often associated with vomiting. Chlorosis may sometimes make its appearance with vomiting which occurs in the morning. This is associated with dyspepsia and constipation in 65 per cent. of cases, and the blood findings of extremely low hemoglobin with a normal or only slightly reduced red count.

d. Vomiting of Pregnancy. Usually begins at 5-6 week and ceases by end of 3rd month, but in the pernicious form, it continues until patient is dehydrated, starved, and acidosis sets in. This type is important from point of view of treatment for often by medicinal and dietetic means the conditions can be cured without resorting to emptying the uterus.

c. Migraine. Is of unknown etiology, heredity being a great factor. 80-85 per cent of the cases are always associated with headache paroxysms. At onset of attack, patient rises with a headache, next nausea and vomiting, irrespective of food taking. Condition stops for weeks and similar attacks then recur.

f. Gastric crisis in tabes. Vomiting is very typical. Is always excessive and uncontrollable, especially in wet crisis. May last several hours to several days and always associated with epigastric pain.

##### g. Cyclic vomiting of children.

1. Occurs without any effort. There is a feeling of swelling up in the back of the throat, and patient leans over and spits it out. Is really a sort of regurgitation. Occurs usually within one half hour after a meal, and rarely during the meal. It is not preceded by nausea or pain and distress in the epigastrium. It may last for many months without any marked effect on the constitution, i. e., no anaemia or loss of weight as a rule. It is not influenced by the character of the food, although rarely there is a selective vomiting. Liquids are vomited as well as solids. This con-



dition is found usually in patients of neurotic tendencies, with gastropnoxis, weak, flabby, muscles, etc. In many cases there is a history of some psychic trauma, such as sudden worry or sorrow.

h. Sea-sickness. The cause of the vomiting is obvious.

1. Gastric neuroses. In this type of case the vomiting is irregular and often severe without any apparent cause. It is frequently accompanied by a bloated feeling due to the swallowing of air. Cases of constipation occurring in such neurotics are often accompanied by vomiting which has no relation to food taking, and is often quite persistent. In such cases the vomiting can be relieved by proper diet, hygiene, etc. All of this class of patients will at some time show other neurotic tendencies.

j. Hysteria. May be manifested by severe and uncontrollable vomiting which is not generally accompanied by nausea. Other signs and symptoms of hysteria are usually present.

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### EMERGENCY HEAD SURGERY.\*

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In discussing the subject "*Emergency Head Surgery*" it might be well to divide it into two classes, viz; Scalp Wounds and Skull Wounds.

I want to say first that scalp wounds should all receive careful attention, even if there be no associated fracture of the vault. The danger from sepsis alone is grave. The infection may undermine the loose areola tissue or we may get a severe resulting erysipelas. If the infected scalp is not sufficiently drained, we may get an erosion of the bone or an osteomyelitis due to the sepsis. There may also be an extension of the infection through the diploe, to the meninges and brain, resulting in abscess or thrombosis. Again, if a scalp wound is not carefully examined and injuries to the periosteum noted, we may overlook a fracture which later may cause serious trouble. Therefore, I think it proper in all scalp wounds, matters not if they seem to be very slight, to shave off hair in region of wound and trim off all badly contused tissue, disinfect as well as possible by swabbing out with equal parts of tincture iodine and alcohol and then examine very closely by touch and eyesight for fracture, and if you deem it necessary enlarge your opening so you may make a more thorough examination for fracture.

Now, when we consider the wounds of the skull, we have to deal with both the simple and compound fractures, either fissured, comminuted or perforated, and either with or without depression of the fragments, and also with or without injury to the brain or vessels. Therefore, in every case of head injury, the general condition as well as the local condition should be carefully noted. The amount of shock, blood pressure and pulse rate should be noted; if possible radiographic examination should be made, also a neurological investigation to see if there is any disturbance of reflexes from pressure or any paralysis. The question of treatment in some of these obscure cases sometimes is quite a problem, that is for us to decide what is the best thing to do, but in closed fractures of vault or base, operation should only be considered when there is some well defined indication or a degree of uncertainty making exploratory incision wise. Otherwise the patient should be placed in bed and kept quiet, with ice cap applied to head and given a cathartic. If unconscious, empty bowels with enema and catheterized. If patient in state of shock, lower the head of bed, surround patient with hot water bottles and cover well with blankets and give him intravenous injections of normal salt and enema of coffee, brandy and saline every two hours. Of course I advise this treatment only in cases of marked shock. In cases where there is no marked shock and the symptoms point to compression without localizing signs, the treatment should be different. Instead of stimulating the patient, you should direct your efforts towards reducing intra-cranial pressure, by some operative procedure, as venesection, lumbar

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puncture, and decompression operations on the skull.

Most fractures of the vault are either depressed, comminuted or compound, and here the treatment again differs. Operation is advised in all depressed fractures, punctured fractures, and fractures complicated by intra-cranial hemorrhage, and also as an exploratory measure when the condition of the bone is uncertain.

As a rule, fracture with only a mild degree of concussion, with no splintering of inner table requires no treatment more than rest in bed; and treat any symptoms of concussion that might arise.

### SIGNIFICANCE OF PAIN IN PHYSICAL DIAGNOSIS.

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Pain is probably the cause of most of our emergency calls, and the first thing that we are implored to relieve, on entering the sick room. We should, at all times, find out; first when and where it started, the nature, character and intensity of the pain, and how it is transmitted, if transmitted at all in any direction from the point of greatest intensity.

Pain complained of by the patient should be the doctor's sign to Stop, Look and Listen. All other questions should be postponed until the nature and cause of the pain is diagnosed. We should, at least, make a negative diagnosis as regards certain pathological conditions which we know may be of more or less serious import, and of immediate importance. Especially is this true in acute abdominal conditions.

The investigation should be begun by having the patient show just where the pain first started, the character of the pain when first felt, also the character and location of the pain at the time we first see the patient. In the meantime his gestures and verbal description should be carefully watched and noted. We may thus recognize by the gestures the nature and locality of the pathology causing the condition.

For instance, inflammation of mucous surfaces usually causes a feeling of diffuse soreness rather

than a stabbing, intense pain as found in serous membrane inflammations. Therefore, in bronchitis the patient will, as a rule, indicate his sensations of pain by bringing his open hand down over the sternum and passing across the chest, while in pleurisy, the gesture will be made with the finger tips pointing to the area of greatest intensity. It will also be noted that the patient brings his fingers cautiously toward the chest in this condition. In pleurodynia the patient will press firmly his side to limit the action of the intercostal muscles, which may also be true in the first stages of pleurisy before any exudate has accumulated in the pleural cavity. But the early pains in pleurisy are more localized and stitch like compared with pleurisy.

The tracing of an inflamed intercostal nerve may eliminate the subjective diagnosis of heart disease and thus save the patient much worry.

Deep seated substernal pain, especially if the patients seem to realize impending death, should lead us to suspect aortitis or possible angina pectoris. This is especially true if the pain comes on at irregular intervals and is severe in its nature. Constant, dull, intrathoracic pain without evidences of inflammation should cause us to suspect possibly tubercular enlargement of the mediastinal lymph glands or aneurism of the aorta. In aneurism we would get the characteristic "goose cough", as a result of the impingement upon the recurrent laryngeal nerve. As a further aid in diagnosing aneurism we would get the characteristic accentuation of the aortic second sound and the systolic bruit, on auscultation.

What has been said of mucous and serous membrane inflammations would hold true in the abdominal cavity. When a patient complains of soreness in the abdomen and brings his extended hand down over and across his abdomen, it never means a peritonitis, but as a rule we would expect a mucous colitis which may however be of varying degrees of intensity in distribution which would have to be worked out in each individual case. In peritonitis the patient would indicate his pain by using the tips of his extended fingers, as was the case in pleurisy. But in this condition he would bring his finger tips more cautiously toward his pathology than in the pleuritic condition, owing to the lack of the

\*Read before the Third District Medical Association, at Fitzgerald, Ga., Nov. 24, 1920.

costal protection of the abdomen as compared to the thoracic region.

In beginning appendicitis, we may be somewhat confused as to a diagnosis, especially in those cases without temperature. But it should be remembered that acute epigastric pain with vomiting which also has a tendency to be general over the abdomen suggests appendicitis. And it is to be especially remembered that these early cases may not show any signs of pain at McBurney's point, except muscular rigidity. If we place one hand over either inguinal region and exert pressure comparing the muscular resistance of the two sides, we almost always get a distinct muscular tumor over the appendix, while we find practically no resistance of the muscles on the left side. In acute arthritis, the hand is brought over the painful joint in semi-closed, hovering manner, which is often true also when the hand is used to localize the pain at McBurney's point in appendicitis.

In acute rheumatic fever, it should be remembered that if the patient points to pain at the xiphoid cartilage thence passing his hand upward across the left chest and to the left arm, it is almost pathognomonic of cardiac involvement.

The use of one finger to indicate pain on the scalp should lead us to suspect intracranial syphilis; especially is this true if the pain is more severe late in the afternoons and at night. But a finger passed up the side of the face stopping at a point an inch below the sagittal suture would suggest an affected tooth and should not be confused with the condition just referred to, of trigeminal neuralgia.

In iritis the finger is usually pointed toward the eye and then carried toward the nose or the malar process. While in glaucoma the reverse gesture may be made, as if the patient has the impression that the pain is emerging from the orbit.

In meningitis the absence or suppression of gestures is especially characteristic. We may be unable to elicit gestures at all. If any gestures are made we are usually unable to get the patient to duplicate them.

In myelitis the gesture of both hands spanning the abdomen and the patient's description of a constricting band around his body is within it

self almost pathognomonic of this condition. At least involvement of the cord is highly probable, and a Wasserman in these cases is never negative; then one should be made of the spinal fluid.

It should be noticed that the pains hereto described are inflammatory in their nature and the subjective gestures are made with more or less caution, especially when the hand approaches the pathology. This carefulness on the part of the patient is, however, in direct proportion to the severity of the pain, the tissue involved and the hyperesthesia of the given patient. Which quantities must at times be considered and fairly weighed in the mind of the diagnostician.

We now come to notice pains caused by things other than inflammation. In pain due to pressure by tumors, abscesses, aneurisms and foreign bodies, cramps, and stretching pains and etc.; we find the characteristics quite different from what has been previously said.

Pressure pains are especially continuous and as a rule unaccompanied by fever. In contradistinction to neuralgic pains, they never wholly intermit and never change their point of maximum intensity. The reverse is true of neuralgic pain. Their darting and frequently changing qualities are the chief characteristic signs. Neuralgia may be differentiated from neuritis by the more changing attitude of the neuralgic pain to the various parts of the anatomy. Neuritis is as a rule stationary and the inflamed nerve may be traced by palpation along its entire extent. As a rule, pressure over neuritis produces a sensation of soreness or pain, while pressure over a strictly neuralgic condition gives relief. This is shown by the common practice of the laity in wearing a tight band around the head in neuralgic headaches.

In cramping, tearing or stretching pains, as they are variously termed, the patient does not approach his pathology with carefulness but as a rule is first found forcibly holding the parts, thus alleviating his suffering greatly by limiting the peristalsis of the viscus involved. We find this class of pain mainly in the ureters, bile ducts and in the intestines, which may be caused respectively by the passage of a renal calculus, gall stone, or ordinary intestinal colic. In either case the essentials are the same; it is an effort on the part of the muscular walls of



the viscus to propel some objectionable body or substance along its canal to its exit.

When we walk in to see a patient and find him rolling and tossing on his bed or standing on his knees and elbows, forcibly grasping his abdomen, we never suspect appendicitis, but would rather conclude, after ruling out the possibility of gall stone or kidney colic that likely the patient had been to a family reunion, barbecue, Shriners ceremonial or even to a medical association at Fitzgerald and that he was the victim of a severe case of belly ache. As previously intimated, a patient with appendicitis never forcibly holds his abdomen even before the pain has localized in the right iliac region. For that reason epigastric pain, more or less generally diffused, with vomiting, should be carefully watched, if the patient refuses to exert pressure over his abdomen even though the temperature be subnormal.

Pain in the epigastrium, relieved by taking food or alkalies, would make us suspect peptic ulcer. A simple phrase that is well to carry in mind is "Food case, hunger pain, peptic ulcer." This is as all other things in medicine with exceptions. Gastric cancer may be some times confusing, but as cancer in its early stages is a disease so often free of pain that it should be diagnosed earlier in its course by the other means of diagnosis, which is beyond the scope of this paper.

Pain coming on one or two hours after meals would rather mean duodenal ulcer, especially if this pain came on constantly in such relation to the taking of food. On the other hand, pain in the right hypochondriac region occurring at irregular intervals and without relation to the taking of food would indicate gall stones. This would be especially true if the pain was so severe as to necessitate morphine for its relief. A steady, aching pain at the right costal arch under the line extending from the nipple to the umbilicus, duodenal pathology being ruled out, would cause us to suspect malignancy of the head of the pancreas is accompanied by obstructive jaundice with a slow but steady decline in health with emaciation.

But pain in this region in stout females of forty or more summers would lead us to suspect gall stones. We would look for gall stones also

in all cases with such a pain more especially if a history of typhoid fever was present. Pain located in the gall bladder, cystic or common duct would usually be referred to the region of the umbilicus while pain in the hepatic duct or from tension on Glyssons capsule due to hepatic inflammation or obstructive jaundice, would be referred to the right scapula region posteriorly.

Gouty conditions are usually differentiated from rheumatism by the fact that gout usually affects the smaller joints while rheumatism the larger ones. In gout the condyles are the points of greatest tenderness while in rheumatism the fibrous membranes and tendinous attachments are most sensitive on palpitation; even the fibrous aponeurosis extending up into the muscles are more sensitive in the latter than in the former condition.

In general, chronic fibrous tissues inflammation may be differentiated from inflammation of the contiguous softer tissues by the fact that just before a change in weather the chronically affected fibrous tissue will ache, due to its inability to readily accommodate itself to the change of the equilibrium between the centrifugal pressure of the circulation and the centripetal pressure of the surrounding atmosphere, which balance is always automatically maintained while the weather is balmy and beautiful and the barometric pressure is unchanged. This is why the rheumatic individual has such an accurate but ill convenient means of weather prophecy. Even though the weather is beautiful, when the barometric pressure begins to change he knows the clouds are on the way, altho they are not in sight.

In hysteria the patient's description of pain is usually characteristic. It resembles a fairy tale of some terrible past suffering more than a patent and present reality. By a little tact on the part of the diagnostician, their description of the present unbearable condition of pain may be drawn out to such an extent that their facial expression and deportment will rule out the possibility of any such existing condition, as they describe. In fact they love to tell of their suffering and in the presence of sympathizers they even become excited, fluent and almost poetical in their descriptions. The



pain that may be described would necessarily be very much unbearable if not fatal, and yet as they endure and describe it, they are exhilarated and even less burdened than their pitiful sympathizers, the doctor not excepted.

Headaches coming on three or four hours after arising each morning would suggest some optic condition, possibly some error in refraction, and should be looked into by a competent eye specialist. But more or less constant headaches occurring at regular intervals would indicate some toxic condition. And the pathology causing the same will usually be found among the list of the chronic diseases causing toxemia. It might be said here that in certain kidney lesions the ophthalmoscope in the hands of a competent man may reveal pathognomonic pathology in the posterior aspect of the eye ball before we find anything convincing in the urine. Headaches which are nocturnal and clear up in the day time should always instigate a Wassermann of both blood and spinal fluid. It is true that in females especially headaches are frequent about the menstrual periods and may be more or less constant owing to various pelvic pathology, which however is always given its proper weight by the pain-taking physician.

Tubercular meningitis should be carefully considered in persistent headaches, also brain tumor when the headache is severe and accompanied by projectile vomiting. In speaking of tuberculosis I wish to stress the point that pain on the inner aspect of the knee in children may indicate a tubercular hip joint or a psoas abscess which many months later evacuates itself at the region of Poupert's ligament.

Hipjoint disease may be forcibly pressing the head of the Femur up into the Acetabulum.

It is not the purpose of this paper to say that pain is the only mean of diagnosis but it should be at least a signboard directing us along the right road to a conclusive diagnosis by the other means of investigation., viz: inspection,

palpation, percussion, and auscultation. And in many instances the laboratory and X-ray are needed to confirm or disaffirm our clinical findings.

It seems entirely out of place to mention treatment under the title of this paper. But by way of parenthesis we would like to say that no treatment should be instituted for the relief of pain until a positive diagnosis of the conditions can be made in abdominal conditions or at least a negative diagnosis of certain and dangerous pathology should be made before administering morphine.

Our patients are often so persistent in their contention for relief that if we are not cautious, we will be found yielding to their wishes by appeasing the agonies which they are enduring, without timely reflection of our responsibility in caring for the very life that is submitted to our care. And while the patient sweetly reposes and slumberingly procrastinates, a pus-appendix may materialize, giving rise to a general peritonitis, a funeral a few days hence, while the relatives have nothing to console them except a great floral display and the sympathy of their friends. Or under the same treatment, a hernia may become gangrenous or an intussusception may strangulate, gangrene supervene, and the bowel in either case slough in two, while we carelessly and possibly ignorantly terminate the life, or a worthy father or mother is lost, ruining the future of a home, breaking the happy fireside ring and blighting the future of a bunch of innocent children.

There are only a few abdominal conditions in which we are justifiable in giving this drug. It serves a very beautiful and worthy purpose in giving the patient ease and arresting peristalsis after a diagnosis has been made and the patient is in transit to the hospital, or in some other way is delayed in getting to the operation.

Then in those cases where every thing has been done, seemingly to no avail, when life's last threads are being severed, the curtain drawn, the patient's suffering terrific and unabating, then a crown of poppies placed on his head makes the last pangs of this life more bearable and the first odor of heaven's roses more balmy and invigorating.

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**EDITORIAL DEPARTMENT****THE ROME MEETING.**

To many of us, the seventy-second annual meeting of the Medical Association of Georgia, in Rome, May 4-6, was indeed a memorable gathering. The physicians and the people in general, residing in that pretty little city which

nestles amongst the hills of north Georgia, gave us a hearty welcome and royal entertainment, for which they have our sincere thanks.

In every way the meeting was a pronounced success. The attendance was surprisingly good. The scientific papers were of a high order. And the social affairs were extremely pleasant.

The retiring President, Dr. E. T. Coleman, and Vice-President, Dr. T. E. Oertel deserve our thanks for the efficient manner in which they presided over the sessions. The annual report of the Secretary and Treasurer, Dr. A. H. Bunce, was particularly interesting. The great strides made by the Association during the last year, and the remarkable improvement in the quality of our State Journal, are in no small measure the result of the indefatigable efforts of our Secretary and Editor.

The balloting for new officers for the coming year resulted in the election of the following:

President—Dr. E. C. Thrash, Atlanta.

1st Vice-Pres.—Dr. H. W. Terrell, LaGrange.

2nd Vice-Pres.—Dr. R. M. Harbin, Rome.  
Councillor, 1st District—Dr. E. S. Osborne, Savannah.

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Councillor, 3rd District—Dr. V. O. Harvard, Arabi.

Councillor, 4th District—Dr. W. R. McCall, LaGrange.

Councillor, 5th District—Dr. C. W. Roberts, Atlanta.

To these able and worthy officers, we pledge our aid and co-operation, and we wish for them a most successful term of office.

The Association unanimously voted to accept the invitation to meet in Columbus next year.

Surely each of us hopes that the coming year will be the greatest in the history of the Association,—great in organization, great in scientific accomplishments, and greater still in the promotion of brotherly love among the members of the Medical Association of Georgia.

Morris.



**SACRAL ANAESTHESIA**

DR. H. L. BARKER

Carrolton, Ga.

As early as 1901 and 1903, Cathlin proposed the use of normal saline injections in the sacral canal for the purpose of allaying certain nervous manifestations connected with the urinary tract. Encouraged by some success, the same author later tried to induce anaesthesia by injecting in a similar manner, but at this time proved unsuccessful.

In 1910 material success was reported in this regard. It was Laewen who described his use of one or two per cent solution of novocaine in normal saline solution used in this way and the anaesthetic effect he secured.

Gross advised an alkaline base for the solution as promoting the intensity of the anaesthetic effect and made use of novocaine bicarbonate together with a few drops of adrenaline.

Laewen mentioned that the effect was somewhat variable but claims good results in many instances. Analgesia had been noted in the gluteal region, rectum and anus, skin of the scrotum and penis and of the upper and inner parts of the thigh, and in women, the vulva and vagina. In reviewing the subject of nerve blocking for local anaesthesia, he mentioned the sacral method and reported having used it with good effects. This was our first introduction to the method.

Lewis and Bartells have used sacral anaesthesia in 85 cases:

- 13 Prostatectomies.
- 68 Cystoscopies.
- 2 Cystotomies.
- 1 External Perineal Urethrotomy.
- 1 Rectal Carcinoma.

All with the following results:

Ten of the thirteen prostatectomies needed no other anaesthesia; two required a small amount of ether; one required complete ether anaesthesia. Of the sixty-eight cystoscopies, forty-six gave excellent analgesia; thirteen gave partial analgesia; five gave no analgesia. One of the cystotomies gave good anal-

gesia, the other required a small amount of ether. The one case of external urethrotomy gave complete analgesia.

Hertzler, Lynch, Pickens and Thompson all report series of cases where sacral anaesthesia was used, all giving very favorable reports, but up to date, most of the work done under sacral anaesthesia is on the rectum, for cystoscopies and urethrotomies.

Early in the spring of this year, Dr. John M. O'Connor of New York, and I had a series of ten cases, and since my return to private practice, I have added to that list eleven, divided as follows:

Hemorrhoids .....	6
Dilatation and Curettage .....	3
Circumcision .....	3
External Urethrotomies .....	3
Hydroceles .....	2
Draining of Posterior Cul-de-Sac.....	1
Cauterization of Cervix for Cancer .....	1
Fistula-in-ano .....	1
Ischio-Rectal Abscess .....	1

In all these cases we had complete Analgesia of the parts supplied by the sacral nerves, (Later described).

The solution used is 1% novocaine, either in normal saline solution, potassium sulphate 1% or distilled water. In either case a few drops of adrenalin solution is added. Of this solution, 30 c. c. is used.

The method of administering is: First, place the patient in a comfortable position, face downward. Thoroughly cleanse the posterior surface over the sacrum and coccyx and paint with iodine, then anaesthetize the skin with the above solution. After a few minutes a number 19 or 20 gage needle, 2 to 2 1-2 inches long is entered at the sacro-coccygeal articulation. Direct the needle forward and upward at an angle of approximately 65 to 70 degrees. (This varies with some individuals.)

When the needle enters the canal, there is little or no resistance in passing it up the canal. If there is no fluid, or blood passes out through the needle (which does not happen in normal individuals), then connect the syringe containing the solution and inject slowly. There is very little and sometimes no resist-



ance met on injecting this solution, until the canal is filled.

The capacity of the canal varies with different individuals, and it sometimes is very difficult (failures have been reported) to enter the canal, due to abnormalities. Usually 30 c. c. volume is quite sufficient to fill the canal and give results.

In one of our cases, the canal was filled with approximately 8 c. c., but by slow injections we did inject 15 c. c., which gave perfect analgesia for hemorrhoidectomy. In two others we found an abnormally large canal which, in addition to the 30 c. c. of the 1% solution above named, we injected normal saline solution until we had the characteristic resistance.

Leave the patient in this position for from 20 to 30 minutes, when you will get analgesia sufficient to proceed.

Of the cases reported there has been no ill effects noted. It is very safe and practical and can be used in office and home with very satisfactory results in most all perineal operations.

This method of analgesia is extra dural and affects the anterior division of the sacral nerves, which are formed by the anterior division of the fifth lumbar branch of the fourth and anterior division of the first, second and third sacral and part of the fourth. It seems that the particular branches affected are the pudendal or interior pudic which is formed by the second, third and fourth sacral and gives off the inferior hemorrhoidal, perineal and dorsal of the penis. The inferior hemorrhoidal supplies the sphincter ani and integument around the anus, which communicates with the posterior femoral cutaneous and posterior scrotal. The perineal gives off the posterior scrotal to the skin of the scrotum and the muscular to the transverse perinei, bulbocavernosum, ischio-cavernosum, constrictor urethra and corpus cavernosum urethra, and ends in the mucus membrane of the urethra. The dorsal of the penis supplies the corpus cavernosum, then runs along the dorsal of the penis and ends in the glans.

The visceral branches come from the third, fourth and sometimes the second sacral, and go to the bladder and rectum and in the Female, to the vagina also.

I believe that this method of anaesthesia will

prove a great help with strong perineums in the second stage of labor (if given early enough), certainly with old primiparas and in the primary repairs of lacerated Cervix and perineums.

Possibly if the solution was carried higher up the canal and the head and shoulders tilted downward so as to aid by gravity, we might be able to do a herniatomy, as this possibly might reach the lumbar plexus in this way; but the ordinary method of administering, as stated above, has no effect on the nerves supplying the field of operation for hernias or for varicocele through Bevin's incision.

### DIAGNOSIS OF BONE DISEASES BY X-RAY\*.

By JAMES J. CLARK, M.D.

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A correct interpretation of the various bone lesions demonstrable by the roentgen ray requires a knowledge of the general structural make up and coverings of the bones involved.

The long bones are made up of a dense cortex, medulla and spongy bones at the expanded ends. The irregular bones have little cortex and more medulla. The flat cranial bones have an outer and inner cortical layer and little medullary substance. Their coverings vary as to periosteum and cartilage. The carpals lack periosteum and are covered with cartilage. Therefore never is any periosteal disease found on carpals; also cartilage destroyed never regenerates.

Adult bones develop from periosteum; children develop bone from the epiphysis. Thus in children any disturbance of the epiphysis will produce a change in the growth of the bones involved. The usual type of bone lesions found in children are of nutritional origin, rickets, scurvy and syphilis.

In rickets the appearance of the epiphysis is normal, while the diaphysis is enlarged, both surfaces are ragged in outline, due to irregu-

\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.

larity in ossification. The zone of proliferation is widened and ill defined, disordered and uneven. The periosteum is thickened along the shaft, cortex thinned out and may appear cystic, and various deformities are present.

In scurvy we may find the periosteum elevated by blood clot which may later organize; the epiphysis and diaphysis are not as involved as in rickets.

Syphilis in children is more often found along the shafts of the metacarpals and long bones. A periosteal production is present and there may be changes at the inner margin of the diaphysis.

Tuberculosis is commonly found around a joint; and the lack of bone production with the extensive destruction, decalcification and invasion of the joint aid in a correct diagnosis.

In early osteomyelitis we may find little change in the bone and yet this is just the time the surgeon most wishes for aid. Attention at this time must be centered upon the clinical findings rather than upon the roentgenogram. In a few days the periosteum will be elevated, and areas of decreased bone density will appear, later as bone destruction occurs, bone production will go hand in hand with it, so that in the chronic case a well defined sequestrum surrounded by involucrum will be observed; while in same plate, active and healed areas will be seen.

The important point in diagnosis is the absence or presence of bone production as differentiating between tuberculosis and osteomyelitis, as we never have bone production in pure tubercular infection.

The importance of an early decision as to whether a growth is benign or malignant often rests upon the roentgenologists shoulders and a close study of the plate along the five cardinal points illustrated by Baetjer will greatly aid toward a correct diagnosis.

These are:

1. Invasion. Has growth invaded soft tissues and bone?
2. Bone production. Is there new bone production and where?
3. Bone destruction. Has growth destroyed bone?
4. Point of origin. From cortex, medulla or periosteum?

5. Condition of cortex. Is cortex present, absent, intact, destroyed, swollen or thickened?

The characteristics of a malignant growth are;

1. Starts at a central point and grow equally in all directions.
2. Never definitely limited.
3. If medullary in origin, the cortex is rarely expanded, as growth is so rapid it sweeps through and destroys the cortex before it can expand.
4. It extends through the cortex and down the medulla equally.

5. It is not limited to any place in the medulla, and is so invasive that we cannot decide where growth stops and normal bone begins.

The characteristics of benign growths are:

1. Tend to extend up and down the medulla.
2. The cortex bulges out in a symmetrical manner.
3. The cortex is not destroyed.
4. We can determine the limits of the growth.
5. Definite line of demarkation at limit of growth.

The more common of the malignant growths are the different types of sarcoma, round, spindle, osteal and periosteal, and metastatic carcinoma. Giant cell sarcoma is usually benign or mildly malignant.

Carcinoma, round and spindle cell sarcoma are nearly always medullary in origin, are rapidly growing tumors, extend equally in all directions; cortex is never swollen but is eaten through and disappears. There is no new bone production either within the growth or at its borders. We only see new bone production in slow growing tumors; such tumors grow slow enough to allow nature to attempt to establish a calcium wall to limit growth.

The two most commonly observed sarcomas are periosteal and osteo.

Periosteal sarcoma arises from the periosteum, invades the soft tissues, produces new bone laid down perpendicular to the shaft, separate from the cortex; cortex is not destroyed until late. It is one of the most typical growths.

Osteal sarcoma arises from the cortex or medulla, extensive bone destruction occurs; it grows equally in all directions; the amount of



bone production depends on its malignancy. New bone is produced outside the growth and similar to the periosteal type. These are only two malignant tumors that produce bone themselves.

Metastatic carcinoma is difficult to differentiate from the above two. We generally find them near the entrance of nutrient vessels; this lesion may be present in several bones. The primary focus may be found.

A malignant bone lesion never crosses a joint.

The more common of the benign growths are:

*Osteoma.* Arises from the cortex, extends well out into the soft tissues, assumes a cauliflower shape, new bone is laid down in a symmetrical manner, a definite border, no invasion of soft tissues, may be multiple. May be located anywhere but commonly found near the end of bone extending away from the nearest joint.

*Osteo chondroma and enchondroma.* Composed of both bone and cartilage, generally medullary in origin, tend to extend up and down the shaft, shaft is swollen and bulges, may be loculated. Definite limit in the shaft by a sharply defined border.

*Bone cysts.* Always benign, occur within the shaft, appear like enchondromata, located near epiphysical line, cause cylindrical bulging, have a definite border and may be loculated. As a rule do not expand the shaft as much or as irregularly as enchondroma. Usually discovered by accident due to pathological fracture.

*Giant cell sarcoma:* Usually benign, occur within the shaft near bone end, grows equally in all directions, cortex is expanded and will be found intact unless growth is very large. Stops abruptly at base in medulla. As growth increases in size, periosteum is pushed ahead and forms new bone by irritation.

*Fibromata.* Benign, look like a cyst and striated.

*Ossifying Haematomata*—Follows trauma, and new bone is laid down parallel to shaft and separate from cortex.

*Myositis ossificans.* Bone laid down along the muscle sheaths.

*Pagets disease.* Cystic striated appearance, present often in many bones. skull may be involved.

Many lesions of bone have been omitted but an effort has been made to review the common-

er types observed in general practice. The assistance that the trained roentgenologist is able to offer the surgeon is always appreciated, especially in the early diagnosis of bone lesions, as so much depends on the correct diagnosis as regards its surgical treatment.

References. U. S. Army Manual; Bythell and Barclay; Knox: "Radiography and Therapeutics."

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## THE QUARANTINE OFFICER OF TWENTY YEARS AGO VERSUS THE MODERN HEALTH OFFICER.\*

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By M. F. HAYGOOD.

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Prior to the dawn of the Twentieth Century, defensive measures were practically the only means of combatting the spread of such diseases as from time to time became epidemic. The most notable exceptions to this general practice were: the construction of systems of sanitary sewers in our larger cities, the installation of water purification devices, and the use of small-pox prophylactic vaccine, which was discovered by Jenner in 1796.

In an attempt to combat yellow fever, small-pox, scarlet fever, bubonic and pneumonic plague, cholera, diphtheria, and a few other diseases, the enforcement of rigid quarantine was occasionally resorted to. Such protective measures were placed in the hands of sheriffs, police, and constables, who in turn had the right to deputize others to assist them in carrying these measures into effect. These deputies were, as a rule, selected because of political obligations, their ability to use vile language and look ugly, because no one else would employ them, or because their ignorance of the disease was beyond reproach.

Of course, it is useless to state that such measures utterly failed to afford the desired protection. Therefore, as the population became more and more dense, and as facilities for travel increased and took a much larger number of

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\*Read before the Medical Association of Georgia, Macon, Ga., May 5th-7th, 1920.



people from place to place in their own countries and many into foreign countries, it became quite apparent that it was necessary for humanity to assume an offensive attitude toward our most dreaded enemies, the great armies of micro-organisms, and since the beginning of the present century much progress has been made in offensive measures, and the battle has only begun. New recruits are being enlisted every day.

The Commissioned Officers in this army of offense, (the Federal, State, County, and City Health Officers) are studying disease prevention in a scientific manner, and are teaching preventive medicine to laymen throughout the length and breadth of their various domains. The service these health officers are rendering their communities is worthy of our commendation and a living salary. These men are specialists, limiting their practice to disease prevention. It, therefore, requires some special training to become a proficient executive of a real health department, and the man, who by reason of his training and his diligent efforts, succeeds in bringing down, by a good per cent, the morbidity and mortality rate in his district is certainly entitled to a living wage from the citizens of the community, who are the direct beneficiaries of this work.

It is not unreasonable to say that the sickness and death rate is decreased in a given community, having a health organization, just in proportion to the proficiency of the health officer. In a number of Georgia counties the typhoid and dysentery rate has been greatly lowered by sanitation and anti-typhoid vaccination. In some instances the decrease has been as much as 88 per cent.

Among the public health measures which are being put into operation by the modern health executives are:

1. Education, which is the foundation upon which must rest our great structure of physical fitness and longevity. Laymen are learning, from these guardians of health, the real cause and means of spread of many communicable diseases, as well as the proper control measures to be employed. They are told and retold to tear away the old surface privy and install sanitary conveniences, because of soil pollution resulting from unsanitary sewerage disposal, pro-

ducing hookworm disease, dysentery and typhoid fever. They are instructed to work and sleep in the open and to eat only pure nutritious food so as to avoid tuberculosis. The children are taught to brush their teeth daily in order to preserve these instruments of mastication. They are advised to take typhoid and smallpox vaccination.

2. *Sanitation.* Sanitation is one of the most useful weapons that can be employed in this great offensive warfare. It was one of the most potent factors in winning the World War. During the entire war only 1083 cases of typhoid fever developed resulting in 158 deaths. Of course, vaccination had some influence on decreasing the typhoid rate, for it is very probable that more than 1083 men were already infected when they reported to camp and a large number became infected while on furlough or leave. Had the same morbidity and mortality rate obtained in the army during 1917-18 as during the Civil War (1861-62) there would have developed 226,001 cases with 62,694 deaths. Or had the Spanish-American war rate obtained there would have developed 291,637 cases and 30,916 deaths.

The Malaria record was equally remarkable, only 14,087 cases with 31 deaths. Had the 1861-62 rate prevailed there would have been 1,526,572 cases and 12,084 deaths. This, of course, was mainly due to extra-camp sanitation. The diarrhoea and dysentery record for 1917-18 in the army was only one-twenty-fifth as high as during 1861-62.

3. *Vaccination.* There is no question but that typhoid vaccination has been a great factor in the control of typhoid fever. Referring to the record mentioned above, an excerpt from the 1919 report of the Surgeon General of the Army reads as follows: "At no time during the year was typhoid fever of any serious importance except during the latter part of the year 1918 in France. A number of cases appeared among the troops, who had been operating and rapidly advancing over battle swept areas in heavily infected territories. That the artificial immunity of a greater number of men did not break down is, indeed a cause of congratulation, and an evidence of high protective immunity conferred by the typhoid vaccine."

So far as we are concerned with the prevention of smallpox, vaccination is the "remedy par excellence." Not only do we recognize in this measure a means of protecting those who are vaccinated for a period of five to seven years after the successful vaccination, but we believe that this remedy has, in some way, been responsible for the mild type of smallpox with which we now come in contact.

There are other vaccines of protective value but the above two stand at the head of the list.

There are many other measures employed by the modern health officer which might be referred to only in a brief way, the lack of space and time preventing the least semblance of a full discussion here. Reference is made to the physical examination of school children, reasonable isolation of those, who by reason of their infection may be a potential source of danger to others, the maintenance of such institutions as Childrens' Clinic, Baby Welfare Centers, the collection and transmission of morbidity and mortality reports, the adoption of anti-mosquito anti-malaria measures in communities where malaria is a considerable problem, as well as anti-venereal and anti-tuberculosis campaigns.

Judged by the above specifications, not all of the physicians who today fill the place of health officer are of the modern type, but it is to be hoped that they will shortly become such or will vacate for men who can, and will, be rated as a "Modern Health Officer."

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#### OFFICIAL CALL

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To the Officers, Fellows and Members of the American Medical Association:—

The seventy-second annual session of the American Medical Association will be held in Boston, Massachusetts, from Monday, June the sixth to Friday, June the tenth, Nineteen hundred and twenty-one.

The House of Delegates will convene on Monday, June the sixth.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, June the seventh at 8:30 p. m.

The various sections of the Scientific Assembly will meet Wednesday, June the eighth, at 9

a. m., and at 2 p. m., and subsequently according to their respective programs.

Attest: William C. Braisted,  
Alexander R. Craig, Sec. President  
Chicago, Illinois, April ninth.

Dwight H. Murray,  
Speaker House of Delegates.

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#### HOUSE OF DELEGATES

The House of Delegates will convene 10:00 a. m. on Monday, June 6., 1921., in the Boston Medical Library, 8 The Fenway.

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#### REPRESENTATION

*The apportionment of delegates made at the Chicago Session of 1918 entitles your State Association to two delegates for 1919-20-21.*

"A member of the House of Delegates must have been a member of the American Medical Association and a Fellow of the Scientific Assembly for at least two years next preceding the session of the House of Delegates at which he is to serve."

"Delegates and alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half, as near as may be, shall be elected each year. Delegates and alternates elected by the sections, or delegates appointed from the United States Army, United States Navy, and United States Public Health Service shall hold office for one year.

—Chap. 1, Sec. 1 and 2, By-Laws.

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#### RULES FOR THE GUIDANCE OF THE COMMITTEE ON CREDENTIALS

*Adopted by the House of Delegates at Atlantic City, N. J., June 6th, 1912.*

1. Credentials shall be of two parts. The first part shall be sent to the office of the Secretary of the American Medical Association by the secretary of the constituent association, not later than seven days prior to the first day of the first meeting of the House of Delegates, and shall be a list of delegates and alternates for that occasion. The constituent associations shall designate an alternate for each delegate, who may take the pledge of the delegate when authorized to do so by said delegate in writing.



In the absence of such authority, any alternate who has been duly chosen by the constituent association may be seated in place of any delegate who is unable to attend, provided he presents proper official authority from said association (*as amended June 17th, 1913, and June 7th, 1917*).

2. Each delegate shall be furnished with a credential by the secretary of the association by which he is elected on a prescribed form furnished by the Secretary of the American Medical Association, which shall give the date and term for which he was elected and who was elected as alternate for him in case of his inability.

3. A delegate on presenting himself to the Committee on Credentials, may be seated even though he may not present any part of his credentials, provided he is properly identified as the delegate who was elected by his association and whose name appears on the Secretary's record.

4. No alternate may be seated unless his credentials meet the same requirements as designated for the delegate and he can show written evidence that he is empowered by his delegate to act for him.

#### SCIENTIFIC ASSEMBLY

The General Meeting, which constitutes the opening exercises of the Scientific Assembly of the Association, will be held Tuesday evening, June 7, 1921, at 8:30. The Sections will meet on Wednesday, Thursday and Friday, June 8, 9 and 10, 1921.

#### CONVENING AT 9:00 A. M. THE SECTIONS ON

Practice of Medicine.

Obstetrics, Gynecology and Abdominal Surgery.

Laryngology, Otology and Rhinology.

Pathology and Physiology.

Stomatology.

Nervous and Mental Diseases.

Urology.

Preventive Medicine and Public Health.

#### CONVENING AT 2:00 P. M., THE SECTIONS ON

Surgery, General and Abdominal.

Ophthalmology.

Diseases of Children.

Pharmacology and Therapeutics.

Dermatology and Syphilology.

Orthopedic Surgery.

Gastro-Enterology and Proctology.

Miscellaneous.

#### REGISTRATION DEPARTMENT

The Registration Department will be open from 8:30 a. m. until 5:30 p. m. on Monday, Tuesday, Wednesday, and Thursday, June 6, 7, 8 and 9 and from 8:30 a. m. to 12:00 noon on Friday, June 10, 1921.

Terrell County Medical Society announces the following officers for the year 1921:

President—Dr. J. G. Dean.

Secretary-Treasurer—Dr. S. P. Kenyon.

The Davis-Fischer Sanatorium announces that their new building is rapidly nearing completion. While it is being built and considered as an annex, it is as a matter of fact larger than the original building, it being 50x129 ft., 7 stories high. The construction is as near fire proof as modern conception of this term can make it. When completed it will more than double their capacity.

The Nurses' Home will occupy the first two floors, giving room for approximately 75 pupil nurses. The floors above will be for patients, adding a new bed capacity of 110. The large roof garden on the top of the new building will be similar to the one on the present building, except that the new roof will have a sun parlor 18x50 feet, which will be enclosed with glass, equipped with heat and water, so that it can be used both summer and winter.

The two buildings are connected with an overpass over Benton Street on the 4th floor and an underpass in the basement. The equipment will be the most modern that is to be obtained. Seven bed pan sterilizers have been bought with extra valves to be installed in



the old building as well as the new, one being on each floor. As soon as the new building is completed the operating rooms will be increased, both as to size and number. They will occupy their same positions in the original building. New sterilizers are now being installed. The laboratory and X-ray departments, while now of the best, will have some improvements. Special thought is being given to the beds and rooms, as to comfort, light and ventilation. The greatest care will be given the diets and that particular service. A new ice plant will be installed, making it possible to have circulating ice water on each floor, furnishing their own refrigerating plant and manufacturing ice. Their laundry will be doubled in capacity, new machinery for which is now on the way. Many rooms will have private baths and private 'phones. A few suites with adjoining baths are provided for. They hope to be ready to open the new building early in June.

#### A WEEK OF CLINICAL STUDY OF VENEREAL DISEASES.

Atlanta Medical College

Dept. of Medicine.

Emory University

July 11th through July 15th, 1921.

Dr. W. B. Emery

Lectures on Syphilis

Monday July 11th, Wednesday July 13th

Friday July 15th

Hours: 10 to 11 A. M.

Dr. B. C. Duncan

Clinical Treatment of Syphilis

Clinics, Monday, Tuesday, Wednesday and  
Friday.

Hours: 2 to 4 P. M.

Dr. W. A. Upchurch

Acute and Chronic Gonorrhoea

Tuesday and Friday

Hours: 3 to 4 P. M.

Dr. E. G. Ballenger

Gonorrhoea

Wednesday

Hours: 9 to 10 A. M.

Dr. Allen H. Bunce

Dr. Geo. F. Klugh

Demonstration of Spirochoetes

Tuesday and Friday

Hours: 4 to 5 P. M.

Dr. Miller B. Hutchins

Differential Diagnosis of Skin Manifestations  
of Syphilis and Demonstration of Cases.

Monday and Thursday

Hour: 3 to 4 P. M.

Dr. Jack Jones

Silver-Salvarsan and Intra-Muscular Salvarsan

Tuesday and Friday

Hour: 2 to 3 P. M.

Dr. Louis Muse

Dr. Forrest Davenport

Hereditary Syphilis

Monday

Hour: 2 to 3 P. M.

Dr. Walter R. Holmes

Gonorrhoea in Female

Lecture: Tuesday 11 to 12.

Clinic: Monday and Thursday 2 to 4 P. M.

Dr. Allen H. Bunce

Salvarsanized Serum, Wassermann Reaction  
and Spinal Fluid Examination.

Tuesday and Thursday

Hour: 9 to 10 A. M.

Dr. Jas. R. McCord announces the removal of his office to 273 Courtland Street, just off Forrest Avenue, April 1st, 1921. Practice limited to Gynecology and Obstetrics.

Dr. Albert A. Rayle announces the change of his address from Holman Building, Athens, Georgia, to Athens General Hospital.

Dr. Jno. D. Blackburn announces the removal of his offices to 58 Forrest Avenue, Atlanta, Ga. Telephone Ivy 4295.

Dougherty County Medical Society announces the following officers for year 1921:

President—Dr. W. S. Cook.

Vice-President—Dr. I. W. Irvin.

Delegate—Dr. Y. C. Lott.

Alternate—Dr. W. L. Davis.

Bibb County Medical Society announces the following officers for the year 1921:

President—Dr. E. T. Rogers.

Vice-President—Dr. J. P. Homes.

Secretary-Treasurer—Dr. H. J. Peavey.

Delegate—Dr. C. D. Cleghorn.

Alternate—Dr. J. M. Sigman.

Board of Censors—Dr. G. Y. Massenburg, Dr. O. H. Weaver and Dr. C. D. Cleghorn.

Butts County Medical Society announces the following officers for year 1921:

President—Dr. H. W. Copeland.

Vice-President—Dr. F. B. Aiken.

Secretary-Treasurer—Dr. O. B. Howell.

Delegate—Dr. A. F. White.

Alternate—Dr. F. B. Aiken.

McDuffie County Medical Society announces the following officers for year 1921:

President—Dr. S. Gibson.

Vice-President—Dr. Z. W. Story.

Secretary-Treasurer—Dr. B. F. Riley, Jr.

Delegate—Dr. Will Gibson.

Alternate—Dr. E. F. Freeman.

Board of Censors—Drs. S. Gibson, B. F. Riley, Jr., and Z. W. Story.

Franklin County Medical Society announces the following officers for year 1921:

President—Dr. W. W. Cornogg.

Vice-President—Dr. E. T. Poole.

Secretary-Treasurer—Dr. B. F. Smith.

Delegate—Dr. S. D. Brown.

Alternate—Dr. B. F. Smith.

Board of Censors—Drs. G. W. Whiteside, H. G. Williams and H. L. McCrary.

Ware County Medical Society announces the following officers for year 1921:

President—Dr. R. L. Johnson.

Vice-President—Dr. W. D. Mixson.

Secretary-Treasurer—Dr. W. M. Lott.

Delegate—Dr. W. F. Reaviss.

Board of Censors—Drs. W. M. Folks, J. L. Walker and C. M. Stephens.

Thomas County Medical Society announces the following officers for year 1921:

President—Dr. C. K. Wall.

Vice-President—Dr. H. M. Moore.

Secretary-Treasurer—Dr. S. H. Cheshire.

Delegate—Dr. A. D. Little.

Alternate—Dr. C. K. McLean.

Board of Censors—Drs. C. H. Ferguson and J. M. Isler.

Heard County Medical Society announces the following officers for year 1921:

President—Dr. J. W. Daniel.

Vice-President—Dr. A. G. Wortham.

Secretary-Treasurer—Dr. Frank J. Annis, Jr.

Delegate—Dr. J. C. Taylor.

Board of Censors—Drs. F. L. Vineyard, E. F. Taylor and A. G. Worthman.

P. L. Knott, a Chiropractor, has been indicted by the Cobb County Grand Jury. Trial in July Term of Court.

## INCIPIENT GENERAL PARESIS CASE REPORT

By NEWDIGATE M. OWENSBY, M. D.  
Atlanta, Ga.

The first symptomatic grouping of psychical and somatic disorders corresponding to General Paresis was made in 1798 by Harlan, who was then pharmacist at Beddham Hospital, but the disease did not gain a footing in classical Psychiatry until Bayle published his memorable work some twenty-five years later. Since that time, so many contributions have been made to the subject that today it is one of the best understood mental maladies.

Its pathogenesis, however, was a matter of dispute for a considerable number of years, but since the *treponema pallidum* was demonstrated in parietic brains by Moore and Noguchi, and

later confirmed by others, it is conceded that "no syphilis, no paresis."

Attempts have been made to separate paresis, as well as tabes, from other syphilitic diseases of the nervous system. Among the most recent was that of Fournier, who classified them under the heading of para and metasyphilis. These classifications are interesting, but are not generally accepted.

General Paresis is by no means a rare disease and perhaps there is not an asylum of consequence that does not count numerous cases among its inhabitants. The asylum cases are usually well advanced and present unmistakable symptoms of the various types of paresis.

The expansive or megalomaniac type is most frequently observed by the casual visitor, because of his boastful ego, which rises to great heights. He claims to be the wealthiest man in the world, having hundreds of houses built of gold and platinum. He has thousands of the most beautiful women for his concubines. He is a super God and can bring every dead soldier back to life, etc., ad infinitum. This type has been referred to as the classical paretic which has led many to believe that it is typical of all types. Kraepelin claims only thirty percent of all paretics belong to this type and that the simple dementing type greatly out numbers them. Other writers place the percentage still lower.

The characteristic symptoms of the simple dementing type are a gradual mental deterioration, with weak minded features. The slowness in which the symptoms develop, the absent-mindedness, inattention, forgetfulness, increased fatigability, and the peculiar psychical weakness, often cause a diagnosis of neurasthenia to be made. The gravity of the condition is seldom realized until the patient is no longer able to repress the emotions which the force of civilization demand being repressed, and the alterations in his character and conduct become so marked that they cannot escape the notice of his family and friends.

The other types of paresis have been given by White and Jelliffe, as the simple depressed type, the agitated types, tabo-paresis and juvenile paresis. The clinical pictures presented by these various types occasionally

change and show a combination of types.

The physical symptoms are fairly constant in all types, and frequently a diagnosis of impending paresis can be made some years before its onset by the findings in the cerebro-spinal fluid.

Hopes for recovery are justifiable only in the incipient or prodromal stage. When the disease has progressed until it is well developed, remissions may occur but there is almost always a return of its symptoms and the patient eventually succumbs to the malady. Some few cases have been reported where the remission lasted seven years before there was a return of the symptoms.

In order to prevent many cases of paresis reaching the advanced stages, the physician should be on the alert for symptoms of the disease whenever he examines a patient of thirty-five years of age and over, who presents neurasthenic symptoms. Taken by themselves, many of the symptoms will appear trivial; but when the ensemble is considered, they are of the gravest import and highly significant. The patient's denial of ever having had syphilis should not prevent the physician looking for symptoms of paresis, for it frequently happens that they have forgotten or else are unaware of the fact that they have had syphilis.

The case to be presented had been diagnosed as neurasthenia and was referred for treatment of that condition. His history is as follows:

White male. Age 42 yrs. Occupation, marble cutter.

His family history failed to reveal any disease of a nervous or mental origin in his ancestors or collateral relatives.

During his past life he had never suffered with any disease of consequence. He denied all history of syphilis, but admitted having had a small "hair cut" on the penis during his nineteenth year. He visited an advertising doctor for this trouble and states that he was completely cured in a couple of months. He drank some beer between his nineteenth and twenty-fifth years, but was never intoxicated. When he was twenty-five years of age, he married and two children have 'blessed this union.' Both children have always been 'delicate.' Since his marriage, he has always been a steady, hard



working man, until the present trouble developed thirteen months ago. His family and friends think that over work is responsible for this condition.

His wife states that her attention was first called to his condition by his undue irritability. He would give way to furious outbursts of passion over trivial things that had previously given him no concern. He seemed to be greatly depressed over something which he did not tell her about. A short time later, he developed an intense anxiety about his home and family and seemed to be apprehensive over some impending disaster. He would exaggerate things of no consequence until they appeared to be of grave import. At times, he would indulge in passionate weeping for which no cause could be ascertained. His sleep was disturbed by involuntary jerking of his limbs and body. At times he would jump out of bed while he was sleeping. His appetite became impaired and he then attributed his condition to 'stomach trouble.' He constantly changed medicines and doctors after he reached this conclusion. He made unreasonable demands upon the time of others to discuss his disease and troubles. Headaches developed with such severity that he claimed they were driving him mad. On one occasion he had an attack resembling epilepsy but there has been no return of that symptom. There seems to have been a gradual impairment of his memory and he frequently forgets seeing people the day before. His judgment is beginning to show defects. He has become quite careless about his personal appearance and grows irritable when reminded about it. Recently, he has developed a too amiable weakness for the opposite sex and his conversation with them borders on the obscene when not talking about himself or his troubles.

Examination shows his knee jerks to be markedly exaggerated. There was a slight swaying motion when he closed his eyes and stood erect. The pupils reacted to accommodation,

but failed to react to light. A slight scanning of the speech was noted when he repeated the test sentences. A tremulousness of the upper lip and facial muscles was observed during conversation. The tongue was protruded in a jerky incoordinate manner and a fibrillary twitching of the organ observed. A small amount of the spinal fluid was withdrawn for examination. This was later reported from the laboratory as giving a four plus Wassermann reaction.

The mental symptoms presented in this case were of such a nature that it was quite natural for one not acquainted with psychiatric disease to make a diagnosis of hypochondria or neurasthenia. Taken separately, they were not of special significance, but the ensemble were of sufficient importance to cause a trained observer to look for other evidence of mental disease. The scanning speech, Argyll-Robertson pupils, exaggerated reflexes, slight Romberg and twitchings, completed the clinical picture and a diagnosis of incipient general paresis was made. The laboratory findings corroborated the diagnosis.

Intravenous injections of salvarsan, followed by intra-muscular injections of mercury, were ordered. At the expiration of five months, it was noted that the mental symptoms had entirely disappeared and the patient had resumed his former occupation. The deep reflexes had diminished and the slight swaying when standing with eyes closed had been eliminated. The right pupil readily reacted to light, but the left pupil was somewhat sluggish in its reaction. The laboratory findings were negative. All treatment was then ordered discontinued for a period of two months, after which time it will be resumed for a short period.

In view of the fact that he received treatment during the incipient stage with the resultant amelioration of symptoms, there is every reason to believe that a favorable prognosis is justified.

## PRINCIPLES OF MEDICAL ETHICS

### Chapter I.—The Duties of Physicians to their Patients.

#### The Physician's Responsibility.

Section 1. A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

#### Patience, Delicacy and Secrecy.

Sec. 2. Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidence entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

#### Prognosis.

Sec. 3. A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family.

#### Patients Must Not Be Neglected.

Sec. 4. A physician is free to choose

whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.

### Chapter II.—The Duties of Physicians to Each Other and to the Profession at Large.

#### Article I.—Duties to the Profession—Uphold Honor of Profession

Section 1. The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thralldom is to take away all liberty from one's action and thought." (Nicon, father of Galen.)

#### Duty of Medical Societies.

Sec. 2. In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

#### Deportment.

Sec. 3. A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting him-



self with propriety in his profession and in all the actions of his life." (Hippocrates.)

### **Advertising**

Sec. 4. Solicitation of patients by circulars or advertisements, or by personal communications or interviews, not warranted by personal relations, is unprofessional. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The application or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not per se improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

### **Patients and Perquisites.**

Sec. 5. It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

### **Medical Laws—Secret Remedies.**

Sec. 6. It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or other secret

remedial agents, or manufacture or promote their use in any way.

### **Safeguarding the Profession.**

Sec. 7. Physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. Every physician should aid in safeguarding the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

## **Article II.—Professional Services of Physicians to Each Other.**

### **Physicians Dependent on Each Other.**

Section 1. Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

### **Compensation for Expenses.**

Sec. 2. When a physician from a distance is called on to advise another physician or one of his family, dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

### **One Physician to Take Charge.**

Sec. 3. When a physician or a member of his dependent family is seriously ill, he or his family should select a physician from among his neighboring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

## **Article III.—Duties of Physician in Consultations.**

### **Consultations Should Be Requested.**

Section 1. In serious illness, especially in doubtful or difficult conditions, the phy-



sician should request consultations.

### **Consultation for Patient's Benefit.**

Sec. 2. In every consultation, the benefit to be derived by the patient is of first importance. All the physicians interested in the case should be frank and candid with the patient and his family. There never is occasion for insincerity, rivalry or envy and these should never be permitted between consultants.

### **Punctuality.**

Sec. 3. It is the duty of a physician, particularly in the instance of a consultation, to be punctual in attendance. When, however, the consultant or the physician in charge is unavoidably delayed, the one who first arrives should wait for the other for a reasonable time, after which the consultation should be considered postponed. When the consultant has come from a distance, or when for any reason it will be difficult to meet the physician in charge at another time, or if the case is urgent, or if it be the desire of the patient, he may examine the patient and mail his written opinion, or see that it is delivered under seal, to the physician in charge. Under these conditions, the consultant's conduct must be especially tactful; he must remember that he is framing an opinion without the aid of the physician who has observed the course of the disease.

### **Patient Referred to Specialist.**

Sec. 4. When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant; and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case.

Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

### **Discussions in Consultation.**

Sec. 5. After the physicians called in consultation have completed their investigations of the case, they may meet by themselves to discuss conditions and determine the course to be followed in the treatment of the patient. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered as a result of the deliberations of the consultants, which have not been concurred in by the consultants at their conference.

### **Attending Physician Responsible.**

Sec. 6. The physician in attendance is in charge of the case and is responsible for the treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the mode of treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, at the next consultation, he should state his reasons for departing from the course decided on at the previous conference. When an emergency occurs during the absence of the attending physician, a consultant may provide for the emergency and the subsequent care of the patient until the arrival of the physician in charge, but should do no more than this without the consent of the physician in charge.

### **Conflict of Opinion.**

Sec. 7. Should the attending physician and the consultant find it impossible to agree in their view of a case another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state the result of his study of the case to the patient, or his next friend in the presence of the physician in charge.

**Consultant and Attendant.**

Sec. 8. When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness except with the consent of the physician who was in charge at the time of the consultation.

**Article IV.—Duties of Physicians in Cases of Interference.****Criticism to Be Avoided.**

Section. 1. The physician, in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder; nor should the course of conduct of the physician, directly or indirectly, tend to diminish the trust reposed in the attending physician.

**Social Calls on Patient of Another Physician.**

Sec. 2. A physician should avoid making social calls on those who are under the professional care of other physicians without the knowledge and consent of the attendant. Should such a friendly visit be made, there should be no inquiry relative to the nature of the disease or comment upon the treatment of the case, but the conversation should be on subjects other than the physical condition of the patient.

**Services to Patient of Another Physician.**

Sec. 3. A physician should never take charge of or prescribe for a patient who is under the care of another physician, except in an emergency, until after the other physician has relinquished the case or has been properly dismissed.

**Criticism to Be Avoided.**

Sec. 4. When a physician does succeed another physician in the charge of a case, he should not make comments on or insinuations regarding the practice of the one who preceded him. Such comments or insinuations tend to lower the esteem of the patient for the medical profession, and so react against the critic.

**Emergency Cases.**

Sec. 5. When a physician is called in an emergency and finds that he has been sent for because the family attendant is not at hand, or when a physician is asked to see another physician's patient because of an aggravation of the disease, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the family physician after he has reported the condition found and the treatment administered.

**When Several Physicians Are Summoned.**

Sec. 6. When several physicians have been summoned in a case of sudden illness or of accident, the first to arrive should be considered the physician in charge. However, as soon as the exigencies of the case permit, or on the arrival of the acknowledged family attendant or the physician the patient desires to serve him, the first physician should withdraw in favor of the chosen attendant; should the patient or his family wish some one other than the physician known to be the family physician to take charge of the case, the patient should advise the family physician of his desire. When, because of sudden illness or accident, a patient is taken to a hospital, the patient should be returned to the care of his known family physician as soon as the condition of the patient and the circumstances of the case warrant this transfer.

**A Colleague's Patient.**

Sec. 7. When a physician is requested by a colleague to care for a patient during his temporary absence, or when, because of an emergency, he is asked to see a patient of a colleague, the physician should treat the patient in the same manner and with the same delicacy as he would have one of his own patients cared for under similar circumstances. The patient should be returned to the care of the attending physician as soon as possible.

**Relinquishing Patient to Regular Attendant.**

Sec. 8. When a physician is called to the patient of another physician during the



enforced absence of that physician, the patient should be relinquished on the return of the latter.

**Substituting in Obstetric Work.**

Sec. 9. When a physician attends a woman in labor in the absence of another who has been engaged to attend, such physician should resign the patient to the one first engaged, upon his arrival; the physician is entitled to compensation for the professional services he may have rendered.

**Article V.—Differences Between Physicians Arbitration.**

Section 1. Whenever there arises between physicians a grave difference of opinion which cannot be promptly adjusted, the dispute should be referred for arbitration to a committee of impartial physicians, preferably the Board of Censors of a component county society of the American Medical Association.

**Article VI.—Compensation.**

**Limits of Gratuitous Service.**

Section 1. The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous services of a physician. But institutions endowed by societies, and organizations for mutual benefit, or for accident, sickness and life insurance, or for analogous purposes, should be accorded no such privileges.

**Contract Practice.**

Sec. 2. It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician and lowers the dignity of the profession.

**Secret Division of Fees Condemned.**

Sec. 3. It is detrimental to the public good and degrading to the profession, and therefore unprofessional, to give or to receive a commission. It is also unprofessional to divide a fee for medical advice or surgical treatment unless the patient or his next friend is fully informed as to the terms of the transaction. The patient should

be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient.

**Chapter III.—The Duties of the Profession to the Public.**

**Physicians as Citizens.**

Section 1. Physicians, as good citizens and because their professional training specially qualifies them to render this service, should give advice concerning the public health of the community. They should bear their full part in enforcing its laws and sustaining the institutions that advance the interests of humanity. They should co-operate especially with the proper authorities in the administration of sanitary laws and regulations. They should be ready to counsel the public on subjects relating to sanitary police, public hygiene and legal medicine.

**Physicians Should Enlighten Public—Duties in Epidemics.**

Sec. 2. Physicians, especially those engaged in public health work should enlighten the public regarding quarantine regulations; on the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; and concerning measures for the prevention of epidemic and contagious diseases. When an epidemic prevails, a physician must continue his labors for the alleviation of suffering people, without regard to the risk to his own health or life or to financial return. At all times, it is the duty of the physician to notify the properly constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules and regulations of the health authorities of the locality in which the patient is.

**Public Warned.**

Sec. 3. Physicians should warn the public against the devices practiced and the false pretensions made by charlatans which may cause injury to health and loss of life.



**Pharmacists.**

Sec. 4. By legitimate patronage, physicians should recognize and promote the profession of pharmacy; but any pharmacist, unless he be qualified as a physician, who assumes to prescribe for the sick, should be denied such countenance and support. Moreover, whenever a druggist or pharmacist dispenses deteriorated or adulterated drugs, or substitutes one remedy for another designated in a prescription, he thereby forfeits all claims to the favorable consideration of the public and physicians.

**Conclusion.**

While the foregoing statements express in a general way the duty of the physician to his patients, to other members of the profession and to the profession at large, as well as of the profession to the public, it is not to be supposed that they cover the whole field of medical ethics, or that the physician is not under many duties and obligations besides those herein set forth. In a word, it is incumbent on the physician that under all conditions, his bearing toward patients, the public and fellow practitioners should be characterized by a gentlemanly deportment and that he constantly should behave toward others as he desires them to deal with him. Finally, these principles are primarily for the good of the public and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community.

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OF THE

## MEDICAL ASSOCIATION OF GEORGIA

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ATLANTA, GA., JUNE, 1921

No. 13

### ORIGINAL ARTICLES

#### PRESIDENT'S ADDRESS.\*

E. T. COLEMAN, M. D., Graymont, Ga.

*Members of the Medical Association of Georgia, Ladies and Gentlemen:*

My joy would be inexpressible and my contentment unmeasurable could I only realize the consciousness of having made you partially understand just how reverently grateful I am, and the depths of appreciation that lives and abides in my heart and is eternally springing up therefrom as a feeble recompense for the very great honor done and the trust reposed, when out of the goodness of your hearts and the graciousness of your souls, you conferred on me the highest office within your gift. Surely I would be a stranger to gratitude and unacquainted with confession should I not acknowledge the liveliest sense of unmixed satisfaction in return for your dispensation of kindness and generosity. However, a feeling of regretful sadness steals over me as my soul whispers that words and phrases are too cold, empty and meaningless to intelligently portray, or truthfully voice, or spiritually reveal that which is hidden in my heart for each of you.

As I weigh the magnitude of your trust, calculate the responsibilities thereof, and then remember my splendid, noble, great and honored predecessors in this office, whom we all delight to admire, adore, respect and love, I am overwhelmed with a sense of unfitness and unworthiness; yet I cherish the beautiful hope that there has been none elected to this

exalted office whose life was more consecrated to its ideals, or more burdened with its welfare.

#### Medical Association of Georgia.

I believe my interest in and my devotion to the Medical Association of Georgia will be admitted without question by most of those who know me best. May I not here again pledge my first faithful allegiance with all the fidelity of my being to this organization before that of any other *save* the church of my Christ, preserving in my memory the profound thought that this association has wrought achievement after achievement in her honored history of seventy-two years of unyielding idealism in medicine, her destiny zealously guarded and safely guided by those entrusted with her keeping and welfare. The fact that the Medical Association of Georgia has endured for more than seven decades is offered as evidence as to how wisely she builded, and how firm and imperishable was her foundation, with a record that we vow is intelligent and progressive, honorable and patriotic, grand, peerless and splendid; whose existence will be perpetual, ever exerting a halo of influence politically, socially and scientifically, that shall be both powerful and wondrous for the betterment of mankind and the glory of Almighty God. "Ever ready to encourage, eager to initiate, anxious to participate in any movement calculated to promote the brotherhood of man which must be God's highest conception of human relationship."

Believing it would be of interest and information we here give a list of those who have been at the head of the Association since its organization in 1849, as follows: L. D. Ford, J. F. Alexander, R. D. Arnold, C. B. Notting-

\*Read before the Medical Association of Georgia, Rome, Ga., May 6, 1921.

ham, Charles Wells, R. Q. Dickinson, H. F. Campbell, W. W. Charters, A. Means, L. A. Dugas, P. M. Kollock, F. S. Colley, J. P. Logan, J. T. Banks, Robert Battey, De Sausure Ford, G. W. Holmes, J. G. Thomas, R. J. Nunn, Wm. O'Daniel, S. W. Burney, J. T. Johnson, J. A. Eve, J. C. LeHardy, Wm. F. Holt, A. W. Calhoun, K. P. Moore, Eugene Foster, T. O. Powell, A. G. Whitehead, J. S. Todd, J. B. S. Holmes, A. W. Griggs, G. W. Mullican, A. A. Smith, W. H. Elliott, W. F. Westmoreland, F. M. Ridley, Geo. H. Noble, J. B. Morgan, H. J. Williams, F. W. McRae, S. C. Benedict, J. B. Baird, Chas. Hicks, H. McHatton, W. P. Nicolson, W. Z. Holliday, H. H. Martin, M. A. Clark, T. D. Coleman, T. J. McArthur, E. C. Davis, W. L. Fitts, W. W. Pilcher, Ralston Lattimore, W. B. Hardman, W. S. Goldsmith, J. G. Dean, E. E. Murphy, J. W. Palmer, E. G. Jones, E. T. Coleman. The total number being sixty-four (64), of which forty-four (44), are dead, and twenty (20) are now living. We suggest that the Secretary of the Association publish in the Journal a table showing the names of each ex-president, giving county, post office, date of admission into the Association, year of term of office, and whether now living or not.

I am impressed that we should oftener consider the history of the Association, as well as those who have so splendidly and patriotically devoted their time, talent, efforts, and prayers to insure a perpetuation of her sacred principles, comprehensive course and benign, patent and powerful influence, the grandeur of which shall be indestructible because its preserver will be the immutable God. While thinking of those essential to organization I want to say that the officer in the Medical Association of Georgia upon which the most depends and which requires the greatest ability does not happen to be the president, but without question the secretary. The Association can err in the selection of a president without serious consequences, but the same thing to occur respecting a secretary would be a ruinous detriment. Just here may I not be allowed to make a personal but deserved reference. While I am reasonably positive

that there has been no officer of the Association in recent years, barring myself, whose administration has not met the endorsement and expectations of its membership, yet it is my conviction that the labors of none have contributed so much to bring the Association to its present splendid, happy and influential position organically as that forceful executive gifted organizer, exquisite character, inspiring leader, and affable gentleman, Dr. Wm. C. Lyle, continuously our secretary for 11 years. What I have said of our ex-secretary, I predict can also be truthfully credited to Dr. A. H. Bunce, upon his retirement from office, if we are to judge the remainder of his tenure of office by his first year of service.

In this connection we commend to each member of the Association, its Constitution and By-Laws, and with special emphasis—Article Two referring to the *purposes* of the Association. "The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Georgia; to elevate medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interest of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problem of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life." With this one article as a text, volumes of a gospel next akin to that taught by the *Great Physician* and his disciples, might be written. So full of teaching is it that few, however brilliant or devoted to their profession and their organization, have ever quite grasped its full import; and we would say read it to be wise, believe it to be right, and practice it to be just. It will fill the memory with joy, rule the heart with gladness, and guide the feet with safety. The purpose of this Article of our Constitution is too varied, comprehensive and difficult of ac-



complishment to expect any one member to bring to pass the redemption of all its provisions, but every one according to his individual qualifications should be ready to give a reason of the hope that is within him, and do his part in this great work, in whatever sphere we are most inclined or best adapted, as there will be reward and glory enough for us all. We could cherish no higher ambition or hope than to be credited with having humbly contributed, even in a small way, in the achievement of these worthy and beneficent purposes; the first and most fundamental of which is to "federate and bring into one compact organization the entire medical profession of the State of Georgia."

Inasmuch as the Medical Association of Georgia is built of component societies consisting of those county medical societies which hold charters from this Association, and since the only avenue of entrance into the State Association is through a component county society, it at once becomes manifest as to the monumental importance of the county society, the rock upon which the entire organic fabric of the nation must rest from the county society to the American Medical Association. Most assuredly no more important subject could engage the considerate attention of the profession than the nurture, cultivation and maintenance of county unit societies. "The purpose of a county society shall be to bring into one organization the physicians of that county, so that by frequent meetings and full and frank interchange of views they may secure such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the profession in all scientific, legislative, public health, material and social affairs, to the end that the profession may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it; and with other county societies to form the Medical Association of Georgia." Since the State Association is composed of units of component county societies, it at once becomes apparent that the very life and existence of the State Association must depend upon the successful or-

ganization and perpetual maintenance of the county societies. Time and space here forbid detailed discussion as to the specific method best adapted to carry into effect the multiplied provisions of a county society, yet its very purposes, as enumerated, are good and wholesome enough to inspire us to put forth every reasonable effort to the end that a society be perpetuated in every county in Georgia where there is a sufficient number of physicians; and if there be a county that can't do this let the physicians of that county affiliate and identify themselves with some adjacent county society. The provisions of the Constitution and By-Laws of the Medical Association of Georgia are gracious and flexible enough to arrange salvation for every legally registered physician in Georgia, who is of good moral and professional standing and who does not support or practice, or claim to practice, any exclusive system of medicine, and in the house, with many mansions where his organized professional brethren are, there he may be also.

#### **A Parliamentarian.**

I recommend an amendment to the Constitution and By-Laws providing for the creation of the office of parliamentarian. I have thought this wise for the reason that often there arises disputes as to the proper settlement of purely parliamentary questions, and it is scarcely to be expected that the membership of the Association as a whole would become familiar with the rules of order in parliamentary usage. We have now in our Association members peculiarly fitted for this position, and if elected to this office it would be an incentive to further qualify themselves efficiently. We further suggest that this officer be elected for a period of three years.

#### **A National Health Department.**

I make no claim for priority in advocating that a federal department of health be created at Washington with a physician in the cabinet. Yet in an address before the First District Medical Society in the city of Savannah, June 25th, 1910, I strongly urged this measure of just and well deserved recognition to our profession. The advancement in medicine and surgery has kept pace with astonishing



economical and industrial development of the marvelous age in which we live. We only have to glance at the work going on in our profession to realize this. The spirit of science, of experiment, of philanthropy, and the love of knowing the truth, are all aglow in the eagerness to move on to something better. In support of this movement I will quote the language of one of the most conservative statesmen of our times as follows: "The medical work done in the tropics and in the sanitary administrations of the army, navy and canal zone, triumphs in the name of the medical profession, confirms the governmental importance of the profession of medicine. The economy of the union of all health agencies of the National Government in one Department—a department of public health—is wise. In the next decade physicians will play a much greater part in the political and governmental affairs than they have heretofore done and it is proper that they should." I am glad to credit this beautiful compliment and deserved recognition to such a jurist and statesman as Ex-President Taft.

What physician is there in American domain whose heart doesn't throb with pardonable pride and ecstatic joy as he recounts the multiplied achievements of the army and navy medical departments in the World War in the light of medical progress. We began the war with only partial preparedness, and as Napoleon said: "Three-fourths of mankind never do the necessary things until occasion arrives, and just then it is too late." Yet the American troops never got into mass action in the trenches until May 28th, 1918, but in less than six months the glorious news was heralded over the world that victory was ours, the armistice was signed, and the reputation of the American soldier most gallantly sustained. The medical profession of the United States gladly and proudly accept the unbiased and patriotic verdict of their loyal countrymen as to the credit to which they are justly entitled in the magnificent consummation of this glorious result to the end that World Democracy and the eternal principles of freedom should be preserved,

and that unborn generations might be the beneficiaries of its unmeasured blessings.

It is not within our providence here to specifically itemize the accomplishments of our profession in peace and war, but will refer briefly to only a few of the results of scientific research. The scientific work done for the army by the Rockefeller Institute, the Carnegie Institution at Washington, the National Research Council, and Public Health Service, together with the co-operation of the American Medical Association, with all its component State Associations and Council of National Defense, is entitled to unstinted praise and universal approval of all that is patriotic in America, in the World's War.

Referring more specifically to the work of the profession within the last one or two decades, including the World War, we ask permission to mention as follows: The superb sanitary organization, the discovery of the cause and control of malaria and yellow fever, the introduction of antityphoid vaccine, the experiment on the physiologic economy of nutrition, bacteriology, the discovery of hook-worm and of Tropical Sprue, the therapeutic value of the x-ray and radium, x-ray photography, advanced hospital construction, the military application of preventive medicine, and the application to wound treatment of the principle of disinfection by Carrel-Dakin treatment. Certainly if the care of the health and welfare of the people is a legitimate function of government, the Doctor should be consulted in framing the laws designed to accomplish the result, and their administration should be largely entrusted to his skillful supervision. I would insist that the profession of medicine is doing a universal work, and may well claim the cordial co-operation and assistance of every worthy member of society. I would impress the fact that its complete success must depend upon the sympathy, assistance and moral support of every individual who is the beneficiary of its wisdom and benevolence. From the thick of the conflict in behalf of the health and happiness of the people we appeal to all for help. In the language of the immortal Benjamin H. Hill, we too would say: "Who saves his people, saves his country; who

saves his country, saves all things; and all things saved shall bless him."

We here reproduce a plank in the platform of the Republican party, as adopted last June at Chicago: "The public health activities of the Federal Government are scattered through numerous departments and bureaus, resulting in inefficiency, duplication and extravagance. We advocate a greater centralization of the Federal functions, and in addition urge the better co-ordination of the work of the Federal, State and local Health Agencies." The foregoing is some of the data, reasons, and arguments justifying the co-ordination of the various health agencies in a new Federal Department of Health with a physician in the cabinet as chief executive officer.

It is encouraging to know that already Dr. Joseph France, Senator from Maryland, has introduced a bill in the United States Senate establishing a Federal Department of Health with a physician in the cabinet for its chief executive officer at a salary of \$12,000.00 per year. The first assistant to be a physician at a salary of \$10,000.00 per year. The second assistant must be familiar with the process of tabulating vital statistics, at a salary of \$8,000.00. The third assistant must be a physician. In addition to these appointments, the bill provides for the appointment at the option of the Secretary of an advisory board of seven physicians to be appointed for a period of seven years, at an annual salary of \$6,000.00.

When the United States shall have created this new department we have only followed the precedents established by Great Britain, France, Italy, Canada and other nations, and is in line with the crystalized thought of the world for the organization of health agencies on an efficient basis under a single responsible head.

With the endorsement of an ex-president, with a physician's son in the White House, with the party in power at Washington advocating it in their national platform, and a physician in the U. S. Senate as author of the measure, the time would seem propitious for its enactment.

May I not beg that this association in convention assembled now take the needed steps to put itself on record, in no uncertain way, as to its unfaltering position on this vital question looking towards the carrying into effect the provisions of this measure, the purpose of which is to give us that recognition so long held in abeyance.

### Chiropractors.

An alarming wave of chiropractic propaganda is sweeping over the country assuming proportions that are threatening in an endeavor to convince the public that chiropractic is an exact science, and that the origin of all disease is pressure on the spinal nerves as they emerge from the vertebral foramina, and treatment directed thereto will miraculously cure all diseases to which flesh has ever been heir to, or is now heir to or will ever be heir to through the endless ages of eternity. Chiropractic schools are springing up over night like mushrooms with essentially no requirements except the funds necessary to matriculate. The Palmer School alone is estimated to have an enrollment of more than 2,000 at a minimum of \$300 each, making an approximate income of \$600,000.00. We need not underestimate the influence nor scope of their destructive campaign of fraud and fallacy, the purpose of which is to destroy the confidence of the laity in the regular medical profession. These false doctrines taught by false prophets, and in many instances believed by the ignorant, must be answered by the medical profession who are the best guardians of public health. A campaign of education that is persistent, progressive, comprehensive and convincing, should be waged to the end that the masses may better understand the effect, cause and prevention of disease, and that any person not trained in the recognition of diseases that can be communicated from one individual to another is a menace to public health and a nuisance to innocent society.

It is most gratifying to the medical profession of this state that House Bill No. 1 was placed on the table in the Senate during the 1919 session of the general assembly of Georgia, and that



during its session of 1920 this same infamous measure was killed. For the benefit and information of every citizen in Georgia who stands for the protection of the people we reproduce Section 6 (a) of this bill: "Chiropractors who have complied with the provisions of this act shall have the right to adjust patients in Georgia, according to specific chiropractic methods and shall observe state, municipal and public health regulations, sign death and health certificates, reporting to the proper health officers the same as other practitioners." Section 7. "Chiropractors practicing within this State prior to the passage of this Act who are graduates by attendance of chartered Chiropractic Schools or Colleges shall be granted a license as herein provided without examination, provided application be made within thirty days after taking effect of this Act, accompanied by the required fee as herein provided." That the provision of these two sections of the Act would prove a most damnable menace and grievous calamity to public health and society welfare—is so apparent as to need no argument. They are in direct conflict with the spirit and purposes of the Medical Practice Act of our State. It jeopardizes the efforts of physicians, public health officers, state and municipalities for the prevention and stamping out of communicable diseases, and every phase of its provision in vicious and ruinous in effect.

In the A. M. A. Journal of July 3rd, 1920, is an editorial entitled, "Illegal Practice by Medical Cult Practitioners," that is so timely and pregnant with truth that I here ask permission to reproduce it verbatim: "Chiropractors and followers of other medical cults are doubtless practicing in many states in direct violation of the medical practice acts. Chiropractors especially, are aided and abetted in doing so through an organization known as the Universal Chiropractors Association of Davenport, Iowa, which has as its officers some who are also closely identified with a chiropractic school in that city. Such illegal practice could doubtless be checked, if not totally done away with, if in more states such energetic action were taken against them

as is now being conducted in Illinois by the Department of Registration and Education. As referred to in our news column this week, temporary injunctions are being issued individually against all chiropractors in Illinois in an attempt to break the vicious circle established by the Universal Chiropractors Association, which is encouraging a wholesale violation of law. If those who desire to practice the art of healing are not willing to comply with such reasonable educational standards as will render the public safe from ignorance and incompetence, then they should not be granted legal authority to practice; nor should they be permitted to practice on the public illegally through the machinery they themselves have established to evade the penalty for so doing."

While our committee on public policy and legislation, Dr. Wm. C. Lyle and many others deserve the gratitude of the profession for bringing about the defeat of this vicious measure at the last session of the general assembly, we have no assurance that it will not be looming up ominously at each successive session of this law making body, which means the expenditure of too much time, effort and money.

It occurs to me as wise to seek some method by which it might be more permanently settled in the interest of both the profession and the public. My faith and confidence in the wisdom of our committee on public policy and legislation is such that I feel no doubt their deliberations to this end will result in a satisfactory solution of all problem. Doubtless their suggestions will prescribe a minimum standard of education to be required of every one who invokes legal permission from the State to practice any system of the healing art—enforcing the same qualifications for all—whether Allopath, Homeopath, Eclectics, Optometrist, Osteopaths, Chiropractors, Christian Scientist, or any of the other numerous cults by whatever name they may assume. Probably another suggestion of our committee would deny to these various cults a separate board of examiners, but require all to obtain their authority from one and the same regular board of medical



examiners. A revision or amendment to the Medical Practice Act to include these suggestions we are inclined to believe would materially protect the public from the pernicious influence of this false and undermining theory.

### **Compulsory Health Insurance.**

The socialization of medicine and the breaking down of the spirit of medical independence is a pending evil, the proportions of which is so gigantic as not to be appreciated by the most observing of our profession, although in our opinion one of the most vital, and at the same time pressing problems for solution the medical fraternity has faced in many years. This hydra-headed wave of socializing medicine is manifesting itself under the caption of "Compulsory Health Insurance, Workmen's Compensation Law, Industrial Medicine, Sickness Insurance, Health Insurance, Social Insurance, Industrial Accident Insurance and State Medicine"; but by whatever name it masquerades under it fosters autocracy and hinders individualism; and means the spread of the gospel of socialism, communism, bolshevism and radicalism. There can be no doubt as to where the profession of medicine stands on this important question either in Georgia or the United States as a whole. The question, "Are you in favor of Compulsory Health Insurance," was sent 23,245 physicians in the U. S., and 20,176—87 per cent answered no; 1,935—8 per cent answered yes; 1,134—5 per cent answered blank.

In Georgia, out of a vote of 348, 276—79 per cent answered no, 48—14 per cent answered, yes; 24—7 per cent answered blank. As evidence of the uniformity of sentiment throughout the entire states, there was not one state that didn't cast her vote in the negative. In my judgment if a reply to this question was secured from every legal practitioner in America, the above ratio would be maintained if not increased in favor of the negative. This should be convincing to every one as to where legitimate medical sentiment is to be found, overwhelmingly against European socialism, prostituting the physicians'

rights and robbing him of his individuality he has enjoyed for centuries.

From an address by Dr. Jennings C. Litzenberg of Minneapolis on "Socialism and the Practice of Medicine," we gather the following history: "Social insurance was adopted in Germany in 1884; Austria in 1887; Hungary in 1891; Ireland in 1895; Great Britain in 1897; Denmark, France and Italy in 1898; Spain, New Zealand, South Australia and British Columbia in 1902; Russia and Belgium in 1903; Cape Good Hope and Queensland in 1905; State of Mexico 1906; Transvaal in 1907; Alberta, Bulgaria, New Foundland in 1908; Quebec in 1909; Nova Scotia and Manitoba in 1910; Switzerland and Peru in 1911; Roumania in 1912." In our own country forty-five states have now adopted Workmen's Compensation laws. Thus we see this socialistic tendency is sweeping the world in one phase or another. Georgia has its Workmen's Compensation Law, and the next step will be Compulsory Health Insurance. That which was radical yesterday is only liberal today and will be conservative tomorrow. The arguments against Compulsory Health Insurance as enunciated by Dr. Litzenberg are: "It is paternalistic, originated in Germany and is un-American, European experience does not prove its value; the public does not demand it; the labor union does not want it; the medical profession is against it, because it is a sacrifice of thorough work to hasty superficiality and leads to dishonest practice; it leads to maligning and unnecessary running to the physician; its cost would be excessive to the tax payers; it would lead to political jobbery; the physician would be a drudge, over worked and superficial in his labors; his remuneration would be small and his individuality would be dwarfed."

The American Association of Labor Legislation drafted a so-called "Model bill of Health Insurance," which provides: Cash benefits equal to two-thirds of the workers wages for twenty-six weeks; free medical and surgical service; free nursing; free supplies; free hospital; cash benefits to dependents; funeral benefits; maternity benefits; free dental care; free medical attendance for de-

pendents; compulsory for all earning less than \$12,000.00 per year. The cost of this health insurance to be met by the employer two-fifths, the employee two-fifths, and the state one-fifth. The entire provisions of this Model Bill for Health Insurance encourages and leads to deception, as statistics collected in England, Germany and Austria show that 50 per cent of those on the sick list, receiving insurance money, were found to be physically able to return to work, but under the pretense of being sick, were taking their fill of the insurance fund. From beginning to end, from start to finish, from alpha to omega, it means the socialization of medicine, makes the physician an hired agent of State Medicine, is the first step in destroying the spirit of medical independence, puts a premium on workmen feigning sickness, cripples his incentive to carve out his own destiny, is wrong in effect and principle, and inevitably levies a heavy toll on the morale and happiness of all. I would admonish the profession of Georgia to bend every reasonable effort to stem the tide of this deceptive socialistic doctrine of State Medicine.

#### The Councillors.

There shall be elected a councillor for each congressional district for a period of three years. The most important office in the association and the one upon which the greatest responsibility rests, except the secretary, is that of councillor.

I cannot here enter into a detailed discussion of the duties of a councillor, but suffice it to say they are varied, onerous and difficult. It has been my privilege and pleasure to have served three consecutive terms as Councillor—five years of which I was honored with its chairmanship.

So far as the proper discharge of my duties personally speaking, I cannot say; but as respecting every other councillor, with whom I have been associated, I beg the privilege of testifying in his behalf, and feel that I am a competent and impartial witness. My testimony most sacredly given is that the undying gratitude of a just membership of the Medical Association of Georgia belongs to these true,

noble and splendid gentlemen for the valiant service they have so loyally rendered at great personal sacrifice.

Their sweet, pleasant and delightful memory shall ever be securely and lastingly housed in my poor and humble bosom.

#### Dr. Robert Battey.

I feel that it is eminently fit and proper that my address should pay tribute to that simple, quiet, modest, unobtrusive village doctor, but honored, world famed, and renowned pioneer surgeon—Dr. Robert Battey, who despite bitter criticism and denunciations, even reaching threats of lynching, being led and moved upon by the gentle spirit of the great physician, possessed of the attributes of loyalty, honesty, meekness and perseverance, courageously performed the first operation of *the kind* for the removal of diseased ovaries that were distinguishable *as such*. McDowell had previously removed large pelvic tumors of an ovarion or fibroid character without recognizing the ovarion origin, or in which the ovary was recognized. Hence I feel that no violence is done the true history of pelvic surgery to say that Dr. Battey did break the first soil in this particular field of pelvic surgery, and did perform the first operation for the removal of diseased ovaries *as such*, or as he himself first called "Normal Ovariectomy." By this term he did not mean the removal of a normally functioning ovary, but approximately normal in size, yet diseased, and the removal of which would relieve certain reflex neuroses and pelvic inflammatory diseases.

Dr. Joseph Price, Philadelphia, speaking of pelvic surgery, is quoted as saying "Old Battey, in a way, was the daddy of it all". Any complaint that Dr. Battey did not originate ovariectomy in fact and spirit is purely technical; and I am happy to honor, respect and adore his memory as its author.

I am also pleased to congratulate the Floyd County Medical Society and the Seventh District Medical Society for catching the vision out of which was born the suggestion of taking definite steps to commemorate a marvelous achievement in the life of a very great character, whose memory we shall ever cherish



and remember with sacred and delightful emotions. The heart of every member of the Medical Association of Georgia swells with pride as he is reminded that this same Dr. Battey was our Sixteenth President in the year 1876. When I reflect that I am successor in office to this illustrious and benevolent character I am humbled and made sensibly conscious of my own unfitness, however, I am deeply grateful that I am even allowed to be a simple member of an organization of which Dr. Robert Battey was also a member at one time, and its presiding officer.

I am glad to find that the programme of the Seventy-second Annual session of our association provides for the exercises of the unveiling of the Battey monument, I am also deeply mindful of the very great honor of being privileged to preside over these beautiful exercises under the auspices of the Floyd County Medical Society and Seventh District Medical Society. Today the splendid city of Rome is honored; Georgia, the empire state of the South, is honored; the South itself, where lives the purist Americanism of our nation, is honored; the Medical Association of Georgia is honored, and I am personally honored by being privileged to announce that the one selected to make the principal address in the exercises of the unveiling of the Battey monument is a character than whom there is none greater—"No not in Israel." May I assure you that it is my heart and soul speaking when I say it gives me tremendous pleasure and unalloyed happiness to refer to an American citizen who is a man, a gentleman, a student, a scholar, a teacher, a physician, a surgeon, an author, and a christian, the author of whose faith is the meek and lowly Jesus, the humble citizen of Nazareth. In the name of our great profession, and speaking for them, I thank God for a life so crowded with glory, achievements and benevolence for the benefit of mankind, and a walk so close to his Creator that in the sweet and comforting language of the eminent apostle Paul he is prepared to exclaim, "I have fought a good fight, I have kept the faith." Of course I refer to none other than Dr. Howard A. Kelley of Baltimore. We esteem it a great and happy

privilege to be the welcome guests of a people as bounteously imbued with the spirit of real and genuine hospitality as we find on our visit to this magnificent city nestled among towering mountains, rugged hills, beautiful landscapes, green valleys and majestic rivers—the home, sweet home, of the man that shall live perpetually in the hearts, souls and memories of peoples yet unborn.

We are conscious of being in a city famed for the nobility of her sons, and last, but not least, for the beauty of her daughters, heirs of the past, hope of the present, guardians of the future; whom we admire because of their beauty, adore because of their intelligence, respect because of their virtue, and love because we cannot help it.

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## MEDICAL ASSOCIATION OF GEORGIA.

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Minutes of the Seventy-Second Annual Meeting held at Rome, May 4, 5 and 6, 1921.

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### MAY 4—FIRST DAY—Morning Session.

The Association met in the City Auditorium and was called to order at 9:40 a. m., by the President, Dr. E. T. Coleman, Graymont.

Ex-Presidents of the Association, councilors and members of the program committee were invited to take seats on the platform.

Rev. E. R. Leyburn delivered the following invocation:

### INVOCATION.

Almighty God, our Heavenly Father, we gather together this morning for very important matters. All these deliberations, all these discussions, shall center about physical man. All of those who are interested in the discussions want to know the best methods that will enable them to reach the highest point of efficiency in their several fields of endeavor. Before they begin their session this morning, it is their desire that in all their deliberations and in all their efforts they shall have the help of the Almighty God. So in the first moment of this convention we would ask Thy guidance and Thy blessing



upon the convention, upon all the doctors. May the blessings of God be upon them in their deliberations and discussions. And bless them as they enter the sick rooms and as they shall take under their care those who are afflicted. Guide them and bless them today and throughout all the days, and may their stay in our good city be one of delight from the first until the last, for we ask it in the name of Him whom we know is the Great Physician. Amen.

**THE PRESIDENT:** An address of welcome will be delivered by Hon. E. E. Lindsey, Chairman the City Commission.

#### ADDRESS OF WELCOME BY MR. LINDSEY.

Mr. President, Ladies and Gentlemen: We are glad to have you with us. We remember your meeting here several years ago, when friendships were formed and associations were made, and we remember a great many of the men who were here then.

We are sorry to greet you with such cool weather as we are having. This is not usual; it is a good deal out of season. We want you to feel that the weather is entirely different from our feelings. Our hearts are warm, and we want to warm them up toward you.

We have here a city numbering 20,000 people, not that the census gives us that number as many of you know, but we have that many in and around Rome. We have a commission form of government. A City Manager runs the town. We like it very much. The people of Rome like it. We are trying to do things for the City of Rome and are trying to get it out of debt. We have good schools, good water, good people, and we believe a beautiful city. We hope you will enjoy yourselves. We are for you, and the city is yours, and we welcome every one of you. (Applause.)

**THE PRESIDENT:** It gives me very great pleasure to introduce Dr. H. A. Turner, President of the Floyd County Medical Society, who will deliver an address of welcome.

#### ADDRESS OF WELCOME BY DR. TURNER

Mr. President, Ladies and Gentlemen: It is indeed a pleasure to welcome so many of my co-workers to our beautiful little city. This is the second time since I have been a member of the Medical Association of Georgia that you have met here, and on one other occasion when I was a bare-foot boy the Medical Association met here. It was an awe-inspiring sight to me. Nearly every member wore a tall silk hat, and I hope that this Association will have the same effect on our boys as it did on me at that meeting.

From the program, we know you would rather listen to papers and discussions than to hear my speech, so I will conclude by saying that we heartily welcome you to our town. (Applause.)

**THE PRESIDENT:** In the absence of Dr. Murphey, of Augusta, who was to have responded to these addresses of welcome, I take great pleasure in calling on Dr. R. C. Woodard, of Adel, to perform this pleasant function:

#### RESPONSE BY DR. WOODARD.

Mr. President, Ladies and Gentlemen: Of all unexpected things to you and to me is the response to these addresses of welcome by me. We have all heard of Rome. A year ago in our annual meeting it was claimed that all roads lead to Rome. Many of us have never been to Rome before, but we have been taught from our infancy that when we were in Rome to follow the Romans, and we feel that we are perfectly safe this morning in following this spirit of the citizens of Rome.

We appreciate your hospitality. We appreciate your beautiful public buildings, your magnificent streets, your beautiful educational institutions, and we want to show you, while we are in your midst, that we bow to your hospitality as members of the Medical Association of Georgia.

In behalf of the Association, composed as it is today of some of the strongest medical men in our entire southern country, not the men of the silk hat of fifty years ago, but men in our ranks who are real students and

who are trying to do real work and to give the citizens of Georgia real service. In behalf of this great body of men, citizens of Rome, ladies and gentlemen, I thank you. (Applause.)

Papers were read and discussed as follows:

1. Dr. C. W. Strickler, Atlanta, read a paper entitled "The Preservation of Health," which was discussed by Drs. Abererombie, Woodard and Allen.

At the close of the discussion, Dr. E. C. Thrash moved that the paper of Dr. Strickler be turned over to the Committee on Public Policy and Legislation to handle it in a way that will best serve the public.

Seconded and carried.

2. Dr. Frank K. Boland, Atlanta, read a paper on "Some Observations on the Life of John Hunter," which was discussed by Dr. Elkin.

3. Dr. Garnett W. Quillian, Atlanta, read a paper entitled "Crawford W. Long: A Tribute and a Plea for the State Recognition in the Hall of Fame."

Discussed by Drs. Boland, Bennett, Woodard, Dowman, and in closing by the essayist.

4. Dr. J. W. Palmer, Ailey, read a paper on "Chiropraxy," which was discussed by Drs. Elkin and Woodard, after which the discussion was closed by the author of the paper.

5. Dr. W. R. Holmes, Atlanta, read a paper on "The Illness and Death of Napoleon."

6. Dr. N. M. Owensby, Atlanta, read a paper entitled "The Influences Exerted by the Family Physician on the Mental Health of the Community."

On motion, the Association adjourned until 2 p. m.

#### FIRST DAY—AFTERNOON SESSION.

The Association reconvened at 2 p. m., and was called to order by the President.

7. Dr. Thomas D. Walker, Macon, read a paper on "Free Antitoxin," which was discussed by Drs. Abererombie, Mulherin, and in closing by the essayist.

8. Dr. W. L. Funkhouser, Atlanta, read a

paper on "Status of Child Hygiene in Georgia," which was discussed by Drs. Fort, Boeker, Mulherin, McCall, Mikell (South Carolina), Lyle, and in closing by the essayist.

9. Dr. C. C. Bass, New Orleans, Louisiana, read a paper (by invitation) entitled "Quinin in Malaria Control," which was discussed by Drs. Palmer, Harvard, Allen, Wheat, Clements, Reavis, Mulherin, and in closing by the essayist.

10. Dr. Joseph P. Bowdoin Adairsville, read a paper entitled "Resume of Public Health Work for 1920 and 1921."

11. Dr. T. F. Abererombie, Atlanta, followed with a paper entitled "The Relation of Public Health Work to Physician's Reports."

12. Dr. R. A. Herring, Augusta, read a paper on "Public Health Instruction in Georgia."

13. Dr. J. Allen Johnston, LaFayette, read a paper on "The School Child and His Problem."

These three papers were discussed together by Drs. Allen, White, Walker, Clements, Hammond, Hiers, Mulherin, Lazenby, and in closing by the essayists.

On motion the Association adjourned until 7:30 p. m.

#### FIRST DAY—EVENING SESSION.

The Association reconvened at 7:30 p. m., and was called to order by the First Vice-President, Dr. T. E. Oertel, Augusta.

14. Dr. E. D. Highsmith, Atlanta, read a paper entitled "Plastic Surgery," which was discussed by Drs. Jones, Benson, Toepel, and in closing by the essayist.

15. Dr. E. G. Jones, Atlanta, read a paper entitled "Some Observations on Goiter Based on a Routine Study of 800 Patients," which was discussed by Drs. Echols, Adkins, Lewis, Allen, Wright, Reavis, and in closing by the essayist.

16. Dr. J. W. Landham, Atlanta, read a paper entitled "The Management of Certain Types of Malignancies," which was discussed by Drs. Elkin, Clark, and Jones, after

which the discussion was closed by the essayist.

17. Drs. J. E. Paullin and H. M. Bowcock, Atlanta, read a joint paper entitled "Recent Improvements in the Treatment of Diabetes Mellitus."

18. Dr. J. T. McCall, Rome, read a paper entitled "Report of a Case of Double Uterus."

19. Dr. David B. Hawkins, Atlanta, read a paper entitled "Differential Diagnosis of Spinal Cord Lesions," which was discussed by Dr. Echols.

On motion, the Association adjourned until 9 a. m. Thursday, May 5.

#### SECOND DAY—MAY 5—Morning Session.

The Association met at 9:30 a. m., and was called to order by the President.

20. Dr. Theodore Toepel, Atlanta, read a paper, entitled "An Orthopedic Gymnasium, Its Needs and Purposes," which was discussed by Drs. Niles, Thrash, and in closing by the essayist.

21. Dr. George L. Echols, Milledgeville, read a paper on "Some Observations Among Insane Colored Syphilitics."

Discussions by Drs. Roberts, Middleton, Thrash, Wright, Bowdoin, and in closing by the essayist.

22. Dr. W. H. Lewis, Rome, read a paper entitled "A Review of 1000 Cases from the Department of Diagnosis of the Harbin Hospital," which was discussed by Drs. Roberts, Boeker, and in closing by the essayist.

The Secretary read a telegram from the Secretary of the Arkansas State Medical Society, extending greetings to the Medical Association of Georgia, and best wishes for a successful meeting; also inviting the members of the Association to attend the Hot Springs meeting of the Southern Medical Association in November, next.

23. Dr. E. C. Davis, Atlanta, read a paper entitled "A Plea for More Thorough Examination Before Subjecting Patients to Operative Procedures," which was discussed by Drs. Woodard, Allen, Holtzelaw, Cartledge, Paullin, and in closing by the essayist.

The President announced that Drs. West, Abernathy, Hill, Holtzelaw and Haskins, all

of Chattanooga, were present, and would be extended the privileges of the floor and invited to take part in the discussions.

24. Dr. George M. Niles, Atlanta, read a paper entitled "Clinical Report of Nonsurgical Drainage of the Pathologic Gall-Bladder," which was discussed by Drs. Roberts, Paullin, Roberts, Nicolson, and in closing by the essayist.

The time having arrived for the delivery of the President's Address, Dr. Ralston Latimore took the chair and the president, Dr. L. T. Coleman, delivered his address.

At the conclusion of the address, Dr. J. L. Hiers, Savannah, said: Regardless of the love and admiration we have held for many years of our distinguished President, he has further engratiated himself by giving us a wonderfully instructive address to which we have listened very attentively, and I move that a rising vote of thanks be extended to Dr. Coleman for his able address.

Seconded by Dr. Elrod and unanimously carried.

Dr. W. C. Lyle, of Atlanta, moved that the suggestions and recommendations contained in the President's Address be referred to the House of Delegates with instructions to report at the business session tomorrow morning.

Seconded and carried.

Dr. E. C. Davis called attention to a lack of \$300.00 for the Robert Battey Memorial.

Dr. Hiers moved that the members be privileged to hand their contributions to the Secretary to make up this deficit.

Seconded and carried.

At this juncture, reports from the Councilors of the various congressional districts were called for.

Dr. Lyle moved that the reading of these reports be dispensed with, and that they be published in the proceedings.

Seconded and carried.

On motion, the Association adjourned until 7:30 p. m.

NOTE.—The Association did not hold a formal session on Thursday afternoon, but participated in the exercises of the unveiling of the monument to Dr. Robert Battey,



which movement was instituted by the Seventh District Medical Society and the Floyd County Medical Society.

President Coleman called the meeting to order at 3 p. m., and introduced the Rev. Elam F. Dempsey of the First Methodist church, who delivered an invocation.

Dr. Howard E. Felton, President of the Seventh District Medical Society, presented the monument to the City of Rome.

Hon. E. E. Lindsey, Chairman of the Rome City Commission, accepted the monument on behalf of the people of Rome.

The monument bore the following inscription:

"1828-1895—to Robert Battey, Master Surgeon and Illustrious Pioneer in Medicine by the people of Georgia and others who know his worth."

On each side of the granite shaft were inscribed the words: "Originality, Modesty, Fidelity, Courage."

President Coleman introduced Dr. George R. West, Chattanooga, Tennessee, who was a resident of Rome for many years in his boyhood. He paid an earnest tribute to the character and ability of this great surgeon, and emphasized the readiness of Dr. Battey to aid aspiring young men and expressed his gratitude for Battey's aid and guidance to him.

The monument was then unveiled by Mrs. Grace Battey Bayard, a daughter of the man in whose memory the granite shaft was erected.

After the rendition of "Onward Christian Soldiers" by the Lindale Band, Dr. Howard A. Kelly, Baltimore, Maryland, was introduced and delivered an inspiring and eloquent address on the character and life work of Dr. Battey.

The rendition of "America" by the Lindale Band brought the unveiling exercises to a close.

## SECOND DAY—EVENING SESSION.

The Association reconvened at 7:30 p. m., and was called to order by Vice-President Oertel.

25. Dr. J. G. Earnest, Atlanta, read a pa-

per entitled "An Interesting Obstetrical Experience."

26. Dr. Marion T. Benson, Atlanta, read a paper entitled "Discussion on Radical Versus Conservative Operations upon the Uterine Appendages," which was discussed by Drs. Wagnon, White, Wells, and in closing by the essayist.

27. Dr. E. C. Thrash, Atlanta, read a paper entitled "The Correlation of the Endocrines."

Dr. Lattimore moved that papers with lantern slides be now read, and that the other papers without pictures be postponed temporarily, to be taken up later after lantern slide papers had been read.

Seconded by Dr. Mulherin and carried.

28. Drs. Stewart R. Roberts and J. A. McGarity, Atlanta, contributed a joint paper entitled "Tracings in the Diagnosis of Heart Disease."

Discussion by Dr. Houston, and in closing by Dr. McGarity.

29. Dr. Charles E. Dowman, Atlanta, read a paper on "Diagnosis and Treatment of Hydrocephalus," which was discussed by Dr. Clark, and in closing by the essayist.

30. Dr. L. W. Grove, Atlanta, read a paper entitled "Improve Technic for Anoci-Association Anaesthesia with lantern slide demonstrations."

31. Dr. Arch Elkin, Atlanta, read a paper entitled "Report of Some Endocrine Cases with Special Reference to Diagnosis."

This paper was discussed by Drs. Poer, Osborne, Echols, Adkins, Hodgson, Mulherin, Donaldson, and in closing by Drs. Thrash and Elkin.

32. Dr. W. A. Selman, Atlanta, read a paper entitled "Anoci-Association in Abdominal Surgery," which was discussed by Dr. Grove, and in closing by the author of the paper.

On motion, the Association adjourned until 9 a. m., Friday, May 6.

## THIRD DAY—MAY 6—Morning Session.

The Association met at 9 a. m., and was called to order by the President.

33. Dr. L. J. Johns, Tallapoosa, read a pa-

per entitled "Pelvic Infections in the Female."

This paper was discussed by Drs. Klugh, White, Cartledge, and in closing by the essayist.

34. Dr. John P. Moore, Sycamore, read a paper on "The Significance of Emaciation in Diagnosis," which was discussed by Drs. Echols and Niles; after which the discussion was closed by the essayist.

The Secretary presented a report summarizing the business transacted by the House of Delegates.

Dr. Palmer moved that the report be adopted.

Seconded and carried.

35. Dr. S. A. Kirkland, Atlanta, read a paper entitled "Vesical Neoplasms from the Standpoint of the Cystoscopist."

36. Dr. F. C. Nesbitt, Atlanta, read a paper on "Hematuria."

37. Dr. M. F. Morris, Atlanta, followed with a paper entitled "Chronic Nephritis."

These three papers were discussed together by Drs. Thrash, Boland, and discussion closed by Drs. Nesbitt and Morris.

Dr. Pinkney V. Mikell, Columbia, South Carolina, was introduced, and addressed the Association as follows:

Mr. President and Members of the Medical Association of Georgia: I was appointed as a delegate to this body two days before coming over here, and you all know what the Governor of South Carolina said to the Governor of North Carolina, and the Lord knows what I am going to say to you. (Laughter.) The idea is this: To have friendly reciprocity between our adjoining sister states, and my visit over here has been so delightful and profitable to me that I am glad your House of Delegates has decided to have two official delegates sent to the South Carolina Medical Association meeting, which meets next year in Rockhill. I will say that this is a delightful little town in the northern part of the state in which we have the Normal Girls College of our state, numbering about 1,500 strong. I know they will welcome as many Georgia medical men as may see fit to attend the meeting.

It would seem that our problems in North and South Carolina and in Georgia are very much alike in regard to public health matters. We want your viewpoint; we want your help how to handle our problems, and I think you will need ours. No doubt we are having trouble over the same problems, and can be of help to one another. For instance, let us take free antitoxin. We have had that for years, and it is a wonderful help not only to the patients but to the physicians.

I have been very much touched by the loyalty of the members of this Association in putting up this monument to one of its great men—Dr. Battey. I see you are also preparing a memorial for Crawford W. Long. That is one message I shall take back to my association, namely, that we have been derelict in not erecting a monument to that great southern doctor, J. Marion Sims.

I wish to thank you for the courtesies that you have extended to me and to tell you how much I have enjoyed my stay with you, and I hope you can all come to South Carolina next year. (Applause.)

38. Dr. Ralston Lattimore, Savannah, read a paper entitled "The Newer Aspects of High Blood Pressure" which was discussed by Drs. Echols, Niles, Osborne, Morris, Mulherin, Elkin, and in closing by the essayist.

39. Dr. George A. White, Savannah, read a paper on "The Final Results Following Tuffier's Graft."

40. Dr. C. W. Roberts, Atlanta, read a paper entitled "Pyloric Stenosis From the Surgeon's Viewpoint," which was discussed by Drs. Mulherin, Landham, Battey, and in closing by the essayist.

Owing to the number of papers on the program to be read, it was moved and seconded and carried that further discussions on papers be omitted.

41. Dr. F. Phinzy Calhoun, Atlanta, read a paper entitled "The Enucleation of the Eyeball and its Substitute Operation."

2. Dr. Fred G. Hodgson, Atlanta, read a paper on "Treatment of Fractures."

43. Dr. M. T. Edgerton, Atlanta, read a paper on "Interpretation of Headaches."

44. Dr. B. H. Minchew, Waycross, presented a paper entitled "Tonsillectomy Under Local Anesthesia; How to Obtain the Best Results."

45. Dr. A. G. Fort, Atlanta, read a paper entitled "More Remarks on Tonsils, with special Reference to Local Anesthesia."

46. Dr. Murdock Equen, Atlanta, read a paper entitled "A New Teehic for the Removal of Tonsils Under Local Anesthesia."

47. Dr. Elton S. Osborne, Savannah, read a paper entitled "Some Observations on the Role of the Tooth and Tonsils as a Causative Factor in Systemic Infections."

48. Dr. G. D. Ayer, and Dr. J. H. Buff, Atlanta, contributed a joint paper on "Infections of the Maxillary Antrum With Report of Fifty Cases."

49. Dr. George F. Klugh, Atlanta, read a paper on "The Use of Vaccines in Chronic Bronchitis."

50. Dr. James J. Clarke, Atlanta, read a paper entitled "Combined Use of X-ray and Radium in the Treatment of Malignant Disease."

51. Dr. H. L. Barker, Carrollton, read a paper on "Sacral Anesthesia."

On motion, the Association adjourned until 3 p. m.

### THIRD DAY—Afternoon Session.

The Association reconvened at 3 p. m., and was called to order by the President.

As the election of officers was the first order of business at this session, the following officers were balloted for and declared duly elected:

President—Dr. E. C. Thrash, Atlanta.

First Vice-President—Dr. H. W. Terrell, LaGrange.

Second Vice-President—Dr. R. M. Harbin, Rome.

Councillor for the First District—Dr. Elton S. Osborne, Savannah.

Councillor for the Second District—Dr. C. K. Sharp, Arlington.

Councillor for the Third District—Dr. V. O. Harvard, Arabi.

Councillor for the Fourth District—Dr. W. R. McCall, LaGrange.

Councillor for the Fifth District—Dr. C. W. Roberts, Atlanta.

The selection of a place for holding the next annual meeting being in order, Dr. J. M. Anderson invited the Association to hold its next meeting in Columbus.

Dr. Palmer moved that the invitation to meet in Columbus be accepted.

Seconded and carried.

Dr. J. L. Hiers moved that a rising vote of thanks be extended to the retiring President, Dr. Coleman, for the able and impartial manner in which he had presided over the deliberations of the Association.

Seconded and unanimously carried.

The newly elected President, First and Second Vice-Presidents were escorted to the platform and introduced to the Association.

Dr. Thrash, in accepting the presidency, said: Fellow Members of the Medical Association of Georgia: I thank you most heartily for this great honor, and I want to say that in serving you as your President I shall do my very best. (Applause.)

Dr. H. W. Terrell and Dr. R. M. Harbin, First and Second Vice-Presidents, in short but felicitous speeches thanked the members of the Association for the distinguished honor conferred upon them.

On motion, the Association adjourned to meet in Columbus in 1922.

ALLEN H. BUNCE, M. D.,

Secretary-Treasurer.

### MEDICAL ASSOCIATION OF GEORGIA. HOUSE OF DELEGATES.

Minutes of the Seventy-Second Annual Meeting, held at Rome, May 4, 5 and 6, 1921.

#### MAY 4—FIRST MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates met at 9 a. m. and was called to order by the President, Dr. E. T. Coleman, Graymont.

The Secretary called the roll.

Dr. Thrash moved that unless there be objection, a quorum be declared present, and that the House proceed with the transaction of its business.

Seconded and carried.



Dr. W. E. McCurry offered the following amendment to Chapter II, Section 1, of the By-Laws:

PROPOSED AMENDMENTS TO THE BY-LAWS.

Add to Chapter II, Section I, the following: "Visitors, duly accredited to represent the associations of other states or of the District of Columbia, not exceeding three in number for each organization, may attend upon, read papers, and participate in the discussions of the general meetings, but shall not have a vote."

Also in Chapter IV, Section 4, line 9 to amend by striking out the word "and" between members and delegates and inserting after the word "delegates" the words "and accredited visitors," so that the sentence as amended shall read: "He shall provide for the registration of the members, delegates, and accredited visitors at the annual session."

Dr. L. C. Allen offered the following amendment to the By-Laws:

*Resolved*, That paragraph 3, section 5, of the By-Laws be amended by striking out the words "February first" in said paragraph, and substituting in lieu thereof the words "April first," so that the paragraph shall read as follows: "The assistance for defense, as herein provided, shall be available only to members of the Medical Association of Georgia in good standing. Any member who has not paid his annual dues by April the first shall not be considered in good standing."

Dr. Theodore Toepel presented the following:

SAVE PHYSICAL EFFICIENCY.

"The preservation of health, and even the lives, of hundreds of thousands of American children depends upon the enactment by Congress of what is known as the Fess-Capper bill, or some similar legislation. This bill provides for the promotion of physical education in the United States through cooperation with the states in the preparation and payment of supervisors and teachers of physical education, including medical examiners and school nurses. It proposes to

help develop the present and future generations of the youth of our country into men and women who will be able physically to perform the duties of citizenship better than those of the present day.

"The purpose and aim of physical education in the meaning of this act shall be more fully and thoroughly to prepare the boys and girls of the nation for the duties and responsibilities of citizenship through the development of bodily vigor and endurance, muscular strength and skill, bodily and mental poise, and such desirable moral and social qualities as courage, self-control, self-subordination, cooperation under leadership, and disciplined initiative. The facilities for securing these ends shall be understood to include a comprehensive course of physical training activities; periodical physical examination; correction of postural and other remediable defects; health supervision of schools and school children; practical instruction in the care of the body and in the principles of health; hygienic school life; sanitary school buildings, playgrounds and athletic fields and the equipment thereof; and such other means as may be conducive to these purposes.

"For the purpose of cooperating with the states in the preparation of supervisors and teachers of physical education, including school medical examiners and school nurses, through state normal schools and other state institutions equipped for such service; and for the purpose of cooperation with the states in the payment of said supervisors and teachers, an appropriation of \$10,000,000.00 is authorized, and for each subsequent year, an amount sufficient to allot \$1.00 per child of school age to each state which shall have accepted the provisions of this act.

"The amount allotted to each state shall not exceed \$1.00 per child of school age (six to eighteen years, inclusive).

"To administer this act there will be established in the Bureau of Education of the Department of the Interior, a Division of Physical Education, to be in charge of a Director of Physical Education.

"It shall be the duty of the Commissioner of Education, through the Division of Physi-

cal Education, to cooperate with the Division of Child Hygiene of the United States Public Health Service.

"There shall be established in the Bureau of Public Health Service a Division of Child Hygiene to be under the charge of a commissioned officer of the United States Public Health Service.

"The functions of the Division of Child Hygiene of the Bureau of the Public Health Service shall be to study and investigate the problems of child hygiene, to cooperate with State Boards of Health in medical research, field studies, and practical administrative demonstrations relating to the health of infants and children and to child-bearing, and to cooperate with the Bureau of Education, the Children's Bureau, and other recognized agencies dealing with matters related to the health conservation of children and mothers.

"It behooves those of us who know the value of physical training of children, and who realize the crying need for medical inspection in schools, to inform the public and their legislators in Washington of the merits of the Fess-Capper bill.

"We, the physicians of Georgia, who see the hopelessness of repairing the human wrecks who could have been salvaged, if treated in their youth, know that the ounce of prevention in childhood will save tons of cure in adult life. We must be active for the Fess-Capper bill. Write to Congressman Fess, of Ohio, or Senator Capper, of Kansas, get a copy of the bill, study it, and write to your Congressman and our two Senators in behalf of it."

Dr. Thrash moved that the House of Delegates endorse this bill and notify the Senators and Representatives to that effect.

Seconded and carried.

Dr. McCurry presented the following resolutions regarding the licensure of midwives:

#### RESOLUTIONS REGARDING THE LICENSURE OF MIDWIVES.

"Whereas, on account of the appalling mortality in child birth in Georgia, there is a proposition before the State Board of Health

to issue some form of certificate of proficiency to midwives after a course of training under local physicians, and

"Whereas, with the personnel of midwives as at present constituted in Georgia such training seldom could result in proficiency, and

"Whereas, a certificate of any sort from the State Board of Health would amount to an endorsement of their activities; therefore, be it

"Resolved, by the House of Delegates of the Medical Association of Georgia, that it is against public policy to issue any form of recognition to midwives until such time as proper facilities shall have been provided for their efficient scientific training; and be it further

"Resolved, That a copy of these resolutions be transmitted by our Secretary to each member of the State Board of Health."

Dr. Thrash moved that these resolutions be adopted.

Seconded and carried.

The Secretary presented the following preambles and resolutions from the Chatham County Society (Georgia Medical Society) which were adopted:

"Whereas, a publication known as Physical Culture, published in New York City, is soliciting subscriptions from medical practitioners in the United States, and

"Whereas, this same publication is setting forth propaganda which is detrimental to public health by publishing erroneous statements regarding certain specific remedies; therefore, be it

"Resolved, by the Georgia Medical Society (Chatham County Society), that this matter be presented through our delegates to the State convention with the request that action tending to stop such nefarious and erroneous statements be taken by the said State Association; and be it further

"Resolved, That the Medical Association of Georgia bring this matter through its official delegates to the attention of the American Medical Association. Be it further

"Resolved, That a copy of these resolutions be spread upon the minutes of this Society,



and a copy sent to the Secretaries of the District Societies, State Associations, and Surgeon-General of the Public Health Service."

Dr. Frank K. Boland presented the following resolution and urged its adoption:

"*Resolved*, That we, the Fulton County Medical Society, heartily endorse the efforts of the State Board of Health to continue the distribution of free arsphenamin, also free Wassermann tests, and that each member of the society put forth every effort to induce the state legislature to appropriate sufficient funds to carry on this work.

"Also that our delegates be instructed to bring this matter before the Medical Association of Georgia in Rome.

"Respectfully submitted,

"W. B. Emery,

"C. W. Roberts."

Dr. J. O. Elrod moved the adoption of the resolution, which was seconded and carried.

On motion the House of Delegates adjourned until 8:30 A. M. Thursday, May 5.

#### MAY 5—SECOND MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates met at 8:30 A. M. and was called to order by President Coleman.

The minutes of the previous meeting were read and approved.

Dr. J. O. Elrod reported for the Committee on Scientific Work, stating that the committee offered the official program as its work.

Regarding sections, he stated that many of the members engaged in general practice expressed a desire to have all papers read before the general meeting rather than have the scientific work divided into sections; hence this year it was decided by the committee not to have sections.

Furthermore, the committee recommends that a member who sends in the title of a paper to be placed on the program and does not read the paper shall pay the penalty of not having an opportunity to read a paper for two years unless he has a valid excuse to offer for his absence.

Dr. J. W. Palmer moved that the report be

adopted, with the amendment that the Committee on Scientific Work shall pass on the excuse of a man who is listed to read a paper and fails to do so.

Seconded and carried.

Dr. L. C. Allen reported for the Committee on Public Policy and Legislation.

Dr. Toepel moved to amend the report so that the chiropractors shall have a representative on the Board of Examiners. Seconded.

Dr. Palmer moved to amend further that the literary and medical qualifications of chiropractors be the same as for physicians in order to practice medicine.

The amendments were accepted, and the report as amended adopted.

The Secretary presented the following report of the Committee on Arrangements:

We beg to report as follows:

Place of meeting—City Auditorium.

Hotel Headquarters—Hotel General Forrest.

In addition to hotel space in Rome we have secured, through the Ladies Auxiliary, rooms in private homes that will accommodate one hundred and twenty-five visitors.

#### ENTERTAINMENTS.

WEDNESDAY, MAY 4, 5 P. M. TO 6:30 P. M.

Automobile drive to Berry School and Shorter College given by the Rotarians and Kiwanians.

THURSDAY, MAY 5.

Entertainments at the Coosa Country Club on the banks of the Coosa.

Golf tournament 3:30 to 5:30 P. M. Directed by Mr. Frank M. Maddox.

Aquatic stunts by Rome amateurs, 4:30 to 5:30, directed by Dr. C. L. Betts.

Barbecue 5:30 P. M.

Recitation in negro dialect in her inimitable style by Miss Estelle Mitchell, 6:15 P. M.

On account of a previous engagement for the City Auditorium on Wednesday evening the Masonic Temple has been kindly tendered the Association for that evening.

This Committee has made a special effort, in conjunction with the Ladies' Committee, to encourage the attendance of wives and families of visiting physicians, and announcement



of the entertainments for these will be announced in due time.

R. M. Harbin, Chairman.

J. N. Cheney,

J. P. Ballenger.

It was moved and seconded that the report be accepted. Carried.

#### REPORT OF COMMITTEE ON MEDICAL DEFENSE.

Dr. E. C. Davis reported for the Committee on Medical Defense, stating that during the past year the committee had six cases. All of these cases except one under partial trial, were settled out of court. Since the committee had employed the present attorneys to represent the association, they were taking hold of the work actively. They had been given one thousand dollars to take care of the defense work of the Medical Association of Georgia. Further, the attorneys agree to advise the Association in other matters of medico-legal interest during the year.

There are two suits now pending, and possibly two or three threatened suits for malpractice.

It is the policy of the committee to settle these cases out of court as far as possible, as this method had been found much more satisfactory. It avoided publicity, unpleasant experiences, and humiliation on the part of those who were sued.

Every case up to the present time had been successfully combatted and thrown out of court.

In connection with the report Dr. Davis suggested that the Council appropriate two thousand dollars for this work during the coming year.

Dr. Elrod moved that the report be adopted, and that two thousand dollars or as much thereof as may be necessary be appropriated for carrying on the medical defense work.

Seconded and carried.

#### REPORT OF THE COMMITTEE ON HOSPITALS.

Dr. W. P. Harbin, Chairman, reported for the Committee on Hospitals, stating he had written to the American Medical Association officers, asking what plan of procedure ought

to be pursued and whether or not there were any funds with which to carry on this work. He was informed that there were no funds with which to do this work. He did not feel that he could afford to visit all hospitals in the state without having at least his railroad expenses paid. Furthermore, he did not believe that reliable data could be obtained by simply writing to the various hospitals, but thought that personal visits should be made to them. He suggested that the Association, if possible, appropriate enough money to pay a man his railroad expenses in order to visit the hospitals of the state and to go at the work systematically.

Dr. Lattimore moved that the report be received as information.

Seconded and carried.

Dr. W. A. Mulherin reported for the Committee on Health and Public Instruction, as follows:

#### REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION.

"To the House of Delegates: Gentlemen: Your Committee on Health and Public Instruction was appointed October 20, 1920. Shortly after our appointment a letter was received by our Chairman from Dr. John M. Dodson, Chicago, Chairman of the Committee on Health Problems and Education of the American Medical Association.

"This letter is appended to show the general plan contemplated by the A. M. A. for formulating some definite program along the lines of preventive medicine. This program, which it is hoped will be adapted to the needs of each individual state, will be outlined, adopted and published, only after a free discussion by the accredited representatives of the Health and Public Instruction Committee from each state.

"This conference will be held at the next A. M. A. meeting in Boston, June 6 to 10, 1921. In view of this prospective meeting and the ultimate adoption of some general plan that will bear the stamp of approval of the A. M. A., your Committee has deemed it wise not to outline any distinctive plans of its own. It was thought to be a wiser course

to await the result of this conference, and then formulate a plan of procedure that would conform as nearly as practicable to the A. M. A. idea.

"In the meantime your committee has been in touch with the State Board of Health, for the purpose of learning what grade of work was conducted throughout our state, along preventive medicine lines. We have been very much gratified to learn that a great deal of most effective and commendable work was constantly and persistently carried out in Georgia, through our very efficient State Board of Health.

"The Division of Child Hygiene, a component part of the State Board of Health, has proved itself most helpful and effective in carrying out the ideals and policy of our State Board of Health along preventive medicine lines. This branch of the State Board of Health has been established only one year, it has measured up perfectly in its work, and has more than satisfied the most demanding expectations along children's welfare work. As 50 per cent. of the preventive health work done today lies along infants and child welfare lines, the importance of the establishment of this branch of our State Board of Health is readily appreciated. The answers to the questions contained in the appended letter from Dr. John M. Dodson, Chicago, have been kindly compiled and sent to us by Dr. Dorothy Bocker, Director of Division of Child Hygiene for the State of Georgia. Her answers are likewise appended."

#### RECOMMENDATIONS.

"1. Your committee earnestly recommends that every practicing physician in Georgia give his entire support and cooperation to his State Board of Health. We feel that this cooperation will multiply in effectiveness the most excellent work that is being accomplished in Georgia by our State Board of Health. The Georgia State Board of Health is doing work of which every Georgia physician should feel proud. However, remember that Georgia is not yet on the map as regards registration area, for we are not recognized by the United States as being in this class. The fact

that we have not this recognition is not due to any fault of the State Board of Health's activities, or the grade of work it is doing, but to the Georgia physicians not reporting their cases as they should do, although they are legally and morally obliged to report them.

"2. Your committee wishes most heartily to recommend and approve the very commendable move that is being agitated in our state today, for reducing diphtheria mortality, by the free distribution of diphtheria antitoxin throughout our state to rich and poor, black and white alike. Your Committee has given this proposition careful consideration, and has thoroughly studied reliable data from authentic sources. It has reached, what it considers, a logical conclusion, namely, that not only would many children's lives be saved in Georgia, but the state would save for its citizens some twenty to thirty thousand dollars a year, if it adopted and put into effect the free distribution of diphtheria antitoxin.

"3. We recommend that a representative of the Committee on Health and Public Instruction of the Medical Association of Georgia, be authorized to attend the Health and Public Instruction meeting of the A. M. A., as referred to in our report, to be held in Boston some time between June 6 to 10.

"Respectfully submitted,

W. A. Mulherin, Chairman,  
J. D. Herrman,  
J. L. Weddington,  
T. E. Oertel,  
J. G. Dean."

Chicago, October 30, 1920.

Dr. W. A. Mulherin,

Chairman, Committee on Health Problems  
in Education, Augusta, Ga.

Dear Doctor Mulherin:

In order to make effective the nationwide movement for better health conditions in the public schools, each medical society or each state has been asked to appoint a committee to cooperate with the State Teachers Associations. You have been appointed on this committee from your state.

The Council on Health and Public In-

struction of the American Medical Association, and its sub-Committee on Health Problems in Education desire to be kept informed as to the situation in each state and what is being done to improve conditions. We should be glad if your Committee would send a report of its activities from time to time to Dr. Frederick R. Green, the Secretary of the Council. A conference of State Committees will be held at the meeting of the American Medical Association in Boston next June.

The following suggestions may be helpful to the State Committees:

1. The School Health problems involve:

A. The sanitary and hygienic conditions of school buildings, grounds and equipment.

B. Provisions for the physical examination of pupils and teachers for the purpose of (1) detecting and checking communicable diseases; (2) detecting physical and mental defects.

C. Provision for the care of defects which are remediable and for special methods of instruction of children whose defects are not remediable.

D. Improvement in methods of instruction of pupils in hygiene, physiology and allied topics.

11. To secure better conditions the first step is to ascertain what has already been done in each state. For instance, what laws has your state adopted in:

1. Sanitary school grounds and buildings, especially in rural districts;

2. The physical examination of pupils and teachers;

3. The correction of remedial defects where the parents are unable to bear the expense;

What ordinances have been passed in your cities bearing on these problems?

Are these statutes and ordinances enforced, and if not, why not?

Are your Boards of Health, state, county and municipal, actively interested in school health beyond the matter of detecting communicable diseases?

Are there any organizations in your state

which are actively interested in these matters, viz: Women's Clubs, Commercial organizations and the like? If so, are these organizations co-operating in any way? Could they not be brought together for more effective co-ordination and co-operation?

What are the chief obstacles to progress along these lines, such as lack of adequate funds, the opposition of people who oppose physical examination of pupils, lack of public interest or inefficiency of public school officials?

If a report on such items as these could be made by the several states at the conference to be held next June, the discussions elicited should result in the formation of some general principles and plans of action which would be exceedingly helpful to all who are interested in promoting better health conditions for our school children, and who believe that in the care and education of these children—the coming generation of men and women—lies the surest hope of realizing the possible benefits of the great progress which has been made in preventive medicine.

Very truly yours,

JOHN M. DODSON,  
Chairman, Committee on Health Problems  
in Education.

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Atlanta, Ga., Feb. 15, 1921.

Dr. W. A. Mulherin,  
Augusta, Ga.,  
Dear Doctor Mulherin:

Enclosed you will find your questionnaire and the information which I told you I would look up for you.

It has been almost an impossibility to get information from the larger towns as to their child hygiene. However, I am sending the questionnaire attached and will let you have the information when it comes in.

If there is anything further which I can do to help you in this I shall be glad to do so.

Sincerely,

DOROTHY BOCKER, M. D.,  
Director, Division of Child Hygiene.



## ANALYSIS OF SCHOOL HEALTH WORK IN GEORGIA.

### I. Laws.

A. (1) Ellis Health Law: "They shall at least once every school year inspect and make a sanitary survey of the buildings, grounds and the water supply of every school within their jurisdiction and shall have power to close any school when the sanitary conditions are such as to endanger or imperil the health or life of the pupils attending the same."

(2). Every visit to a school or teachers' institute by representatives of the Division of Child Hygiene the sanitary conditions of the school room are stressed. Very effective work is being done along this line by the representatives of the Board of Education, who not only survey conditions but recommend and actually engineer frequently reconstruction of school buildings and the installation of septic tanks.

B. (1). Ellis Health Law: "They shall also examine the teachers and janitors for infectious and contagious diseases and shall also examine each pupil, in the presence of a teacher or nurse for infectious and contagious diseases and for intestinal parasites and for defects of eye, ear, nose, throat, lungs, teeth and other physical defects and shall make a report of such inspection and examination to the State Board of Health to the County Board of Health, and in the case of incorporated towns and cities to the School Board of such municipality, and in case of a pupil, also to the parent or guardian. (See appended resume of what was actually done).

(2). Physical Education Law: "The State Board of Education shall prescribe a course of study in physical education for all common schools of the state, and shall fix the time when said course shall go into effect. This course shall occupy periods totaling not less than thirty minutes each school day, which shall be devoted to instruction in health and safety, to physical exercises and to recess play under proper supervision."

### II. City Ordinances.

(Am sending questionnaire and will forward information later. See appended sheet).

### III. Boards of Health.

A. State: (as per appended summary).

B. County: Many are dead letters; slight amount of antagonism in some Ellis Health law counties; most of Ellis Health law county boards are active, few not. Some non-Ellis Health law counties are active in trying to get school examinations, etc.

C. Municipal: (Questionnaire).

### IV. Interested Organizations.

A. Most of Woman's Clubs, Parent-Teacher Associations and the W. C. T. U.'s have a definite "Child Welfare" program many are working directly with this office. Most of these organizations have a national as well as a state program of activities which they are attempting to follow.

B. Lay women's organizations are very much more interested than medical organizations appear to be.

### V. Obstacles.

A. Lack of Funds: This limits the personnel of the Division of Child Hygiene.

B. Occasional opposition (not expressed openly) of one or more of the physicians of a locality.

C. Lack of interest in the work that is sometimes shown by the health officer.

### VI. Instruction in Hygiene.

A. Ellis Health Law: "Said Commissioner shall deliver one or more lectures to the pupils of each school in his district at least once every school year and such other lectures as may be requested by the County Board of Health. Said lectures shall be upon infectious and contagious diseases, the part played by mosquitoes, fleas and other insects carrying or transmitting diseases and on general matters of health and sanitation and upon such other subjects as may be prescribed by the State Board of Health or by the Georgia Schools (on press).

### Summary Division of Child Hygiene, State Board of Health.

Literature sent out (also pre-school and infant)	54,103
Articles written (Child Hygiene)	4
Publicity Articles to newspapers (also pre-school and infant)	4
Circular letters sent out (15 different letters) (also pre-school and infant)	5,582

Panel exhibits (used at 7 different places).....	73
Lantern slides (mouth hygiene, infant hygiene, child hygiene) .....	155
Fairs (aided by literature, advice, personal attendance, etc. ....	14
Places visited .....	20
Addresses made .....	41
Clinics (4 running, and 10 organizing) .....	14
School children examined .....	2,995

#### Child Hygiene Publications.

	Publi- cations	School Child Series	
Physical Examination Blank.....	12	1	Bocker
Follow-up card .....	13	2	Bocker
Physical examination of the school child .....	14	3	Bocker
The school clinic .....	15	4	Bocker
Weight and nutrition .....	16	5	DeVilbiss
Nutrition score card .....	17	6	DeVilbiss

#### QUESTIONNAIRE.

I. Is your municipal Board of Health interested in school health problems?

II. What work is done in your schools in the detection of transmissible diseases?

III. What work is done in your schools in the physical examination of school children?

IV. Is this work done by a physician or under his supervision.

V. How many nurses do you employ?

VI. What is the nature of the follow-up work?

VII. Are there outside agencies co-operating with you in this?

What is the nature of their co-operation?

VIII. What is the nature of the health instruction given in the schools?

IX. Please send copy of your health ordinances.

X. Please send copy of your physical examination blanks and follow-up records.

Dr. Palmer moved the adoption of the report as presented.

Seconded and carried.

Dr. T. J. McArthur presented the report of the Committee on Neerology, as follows:

#### REPORT OF THE COMMITTEE ON NECROLOGY.

"Mr. Chairman and Gentlemen of the Council of the Medical Association of Georgia: Your committee on Neerology having been assigned the duty of reporting to the Association the names of those of our brethren who since our last meeting have been called from us and from their labors to enter into that haven of rest to spend the endless ages of eternity with those who have gone

before and with our elder brother, The Great Physician, beg to report the names appearing in the following list:

Dr. C. O. Broek, Jefferson, May 29.

Dr. James W. Pileher, Stellaville,.

Dr. Elias B. Reese, Lexington, aged 79, Nov. 8.

Dr. James Otis Rountree, Vidalia, age 32, Nov. 1.

Dr. Jno. Albon Crowther, Savannah, aged 61, Oct. 10.

Dr. James M. Moore, Marietta, aged 72, Dr. Marion T. Davis, Atlanta, aged 57, June 23.

Dr. Guy L. Bush, Atlanta, age 36, June 7.

Dr. Wm. B. Conway, College Park, aged 71, July 6.

Dr. A. L. R. Avant, Savannah, aged 63, June 7.

Dr. Chas. P. Holmes, Fort Gaines, aged 59, May 31.

Dr. H. L. Martin, Atlanta, aged 54, July 2.

Dr. I. W. McDowell, Jr., Savannah, aged 34 July 30.

Dr. John L. Farmer Savannah, aged 56, December.

Dr. Vincent D. Lockhart, Maysville, aged 71, Nov. 14.

Dr. L. P. Herrington, Waynesboro, aged 60, Nov. 6.

Dr. Chas. H. Raley, Wrens, aged 67, Nov. 30.

Dr. John S. Holley, Macon, aged 63, April 20.

Dr. W. J. Dismuke, Oeilla, aged 48, May 13.

Dr. L. J. Keeling, Atlanta, aged 27, April 24.

Dr. R. H. Drewry, Brooks, aged 67, June 25.

Dr. T. J. Charlton, Savannah, aged 56, July 25.

Dr. Julius R. Threatt, Pavo, aged 61, Aug. 29.

Dr. R. C. Kibler, Atlanta, aged 83, July 13.

Dr. H. J. Lasseter, Luthersville, aged 72, Aug. 26.

Dr. Ernest V. Bailey Atlanta, aged 38, Sept. 20.

Dr. W. H. Bishop, Bremen, aged 69, Aug. 12.

Dr. Horace C. Robles, Albany, aged 30, Sept. 14.

Dr. N. B. Drewry, Atlanta, aged 86, July 1.

Dr. James Fulton Wilson, Waycross, aged 73, Jan. 17.

Dr. Robert H. Mobley, Uvalda, aged 39, Jan. 18.

Dr. Robert I. Battle, Cartersville, aged 78, Jan. 23.

Dr. Wm. O. Trammell, Atlanta, aged 63, Jan. 30.

Dr. Jno. G. Elder, Clermont, aged 54, Jan. 11.

Dr. Wm. Willis Griffeth, Bainbridge, aged 32, Jan. 11.

Dr. Owen Thomas Kenyon, Dawson, aged 54, Jan. 7.

Dr. James W. Smith, Monroe, Feb. 2.

Dr. Irwin Willis, Omega, aged 42, Mar. 16.

Dr. Arthur G. Hobbs, Atlanta, aged 67, March 9.

Dr. R. A. Justice, LaGrange, aged 58, May 10, 1920.

Dr. N. V. Boddie, Chipley, aged 54.

Dr. C. W. Weathers, Oakfield.

Dr. A. D. White, Gainesville.

Dr. Guy W. Williams, Forsyth.

Dr. W. C. Hewell, Arabi.

"Dr. Thomas H. Andrews died at his home, Carnegie, Georgia, Nov. 22, 1920, after a short illness at the age of 75 years. His life was made up of many kind deeds through his years of service as a doctor. At the beginning of the Civil War he enlisted as a private in the Confederate Army and served his country faithfully four years; after which he studied medicine in Atlanta, Georgia. Graduating, he settled near his old home. He married a Miss Jordan, from this union there being raised a large and influential family.

"Dr. Andrews was a man of wide influence in Randolph county, not only in the medical world, but politically and religious-

ly as well. He saved up a nice estate which he honestly earned. For fifty years he practiced medicine on horseback and buggy, and it was said of him that he never turned down a call, if able to ride, making his name a household word in every home in the community. His advice was sought over the entire country on all matters of great importance.

#### RANDOLPH COUNTY MEDICAL SOCIETY,

E. C. McCurdy,

F. M. Martin,

—Committee."

Shellman, Ga., April 27, 1921.

"William Ellington Morgan, LaGrange, Atlanta College of Physicians and Surgeons, 1888; aged 44; a member of Troup County Medical Society; Georgia State Medical Association and American Medical Association. Had taken postgraduate courses in New York, P. S. H., Chicago, New Orleans, Mayo Clinic. Engaged in practice of medicine in Troup County for 23 years and enjoyed a very large practice until time of death. Very active in public affairs. Died March 9, 1921.

Thomas J. McArthur, Chairman,

J. W. Palmer,

H. W. Terrell."

It was moved and seconded that the report be adopted. Carried.

At this juncture, Vice-President T. E. Oertel took the chair.

Dr. Garnett Quillian, Chairman, presented the report of the Committee on Crawford W. Long Statue.

#### REPORT OF COMMITTEE ON CRAWFORD W. LONG STATUE.

"Your committee regrets to report that it was unsuccessful in its efforts to secure favorable action by the legislature at its last session on the resolution to appropriate an amount sufficient to erect to Crawford W. Long a statue in the Hall of Fame at Washington.



"Your committee is delighted to report, however, definite progress in this direction. Soon after the matter was definitely taken up with the members of the General Assembly it became evident that there was a sentiment in favor of including in the original resolution an appropriation sufficient to erect two statues, one for Long and the other for Alexander H. Stephens, heretofore named by the legislature for this distinction. In compliance with this sentiment a substitute resolution was introduced and was presented to a joint committee on appropriations from the House and Senate and by them was reported favorably to the House.

"This resolution was considered in its regular order on a Saturday, when the attendance on the session of the House was small, and by its friends was tabled, and hence was not finally acted upon.

"Your committee believes that with a most excellent beginning last year, and with a public sentiment in favor of this resolution it will be much more likely to be successful in its efforts to secure favorable action at the hands of the Legislature at its approaching session than last year.

"Your Committee makes the following suggestions:

"1. That Dr. R. C. Woodard, of Adel, who rendered invaluable assistance to this committee, and who since has been elected a member of the House, be added to our Committee.

"2. That the Medical Association of Georgia request an impartial investigation by an impartial committee from the American Medical Association to establish finally and securely the claim of Crawford W. Long as being the original discoverer of ether anesthesia for surgical operations.

"3. That the President be requested to invite some distinguished physician each year to pay merited tribute to Dr. Long at our annual meeting, by delivering an address on a scientific subject, this to be known as the "Crawford W. Long Oration."

"4. That the attached set of resolutions be adopted so as to give a fresh impetus to the movement began last year to place a

statue to Crawford W. Long in the Hall of Fame at Washington.

Garnett W. Quillian, Chairman.  
E. T. Coleman,  
F. M. McRae,  
E. C. Thrash,  
R. H. Stovall,  
L. G. Hardman,  
W. E. McCurry,  
J. M. Smith,  
O. R. Riner,  
H. M. Fullilove,  
J. M. Anderson."

"WHEREAS, in the Hall of Fame in the capitol at Washington, Georgia has no statue to commemorate the memory of any of her distinguished sons, and,

"WHEREAS, in 1902 a commission created by the legislature of the state designated Crawford W. Long, discoverer of ether anesthesia, and Alexander H. Stephens, Vice-President of the Confederacy and distinguished Georgian, for this distinction, and,

"WHEREAS, recently, the Senate of the University of New York unjustly designated a Dr. Morton, of Massachusetts as worthy of a place in the University's Hall of Fame as the discoverer of anesthesia; therefore, be it

"RESOLVED, That the Medical Association of Georgia, in annual meeting assembled, condemn the action of the Senate of the University of New York as being unfair and unjust to Dr. Long, the real discoverer of anesthesia, and petition the Governor and Legislature of our state to make at its next meeting an appropriation of \$10,000 with which to erect appropriate statues to our own illustrious sons in the Hall of Fame at Washington, and be it further

"RESOLVED, That in the event the \$10,000 should not prove adequate for both statues, the Medical Association of Georgia will raise by private subscription an amount sufficient to supplement the \$10,000.00 for this purpose."

It was moved that the report be adopted.  
Seconded and carried.

In the absence of Dr. J. L. Campbell, Chairman of the Cancer Commission, the

Secretary presented the report as follows:

"Gentlemen of the Medical Association of Georgia: Since the meeting in Macon one year ago, your Cancer Commission has endeavored to bring the subject of cancer control to the attention of the public through the agencies of the women's clubs, the Red Cross district nurses, the city health nurses and the county medical societies.

"During the summer it was agreed that the members of the Commission should co-operate with the women's clubs in their respective districts. There has been no formal report of this work, so I am unable to tell to what extent it has progressed.

"In January, 1921, the American College of Surgeons arranged a clinical congress in Atlanta. At my request Dr. Franklin H. Martin succeeded in inducing Dr. Joseph C. Bloodgood to come to Atlanta in the interest of cancer control. While Dr. Bloodgood was here he addressed the officers of the Atlanta Federated Woman's Clubs, spoke at the Jewish Church and again at a public meeting the evening of January 14.

"Your Chairman has spoken to several gatherings of women in Atlanta. They have promised to co-operate in the propaganda and I have been told that people with early cancer have gone to their physician for treatment as a result of the campaign.

"Letters have been sent to the county societies, reported in the Journal, and we have been gratified at the response. One secretary writes me that he has addressed the women's clubs in his county on the subject. Others have written for literature, etc., necessary to prepare a paper for educational purposes. I have urged the societies to select a layman to make these educational talks, for in that way all appearance of personal interest on the part of the doctor is removed.

"The officers of the State Federation of Women's Clubs promised to select one of their members to give a short talk on the subject at district meetings of the Federation. The work was placed in the hands of Mrs. Noel Park, of Greensboro. Each member of the Commission was requested to

write Mrs. Park and help to arrange with her for these meetings.

"The American Society for the Control of Cancer has been exceedingly kind in sending literature to those whose names have been given.

"Up to the present time the Commission has been operating without funds. If the Association could see their way clear to make a small appropriation for the collection of material for an exhibit which could be loaned the county societies it would be a great educational feature for their meetings.

"There is an abundance of material that could be used for this purpose which is going to waste here in Atlanta. I would like to urge as many as can to join the American Society, 25 W. 45th Street, New York City, for their literature is very helpful.

"Respectfully,

"J. L. CAMPBELL, M. D."

It was moved and seconded that the report be accepted as presented. Carried.

On motion, the House of Delegates adjourned to meet at 8:30 a. m., Friday, May 6.

#### MAY 6—THIRD MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates met at 8:30 a. m., and was called to order by President Coleman.

The secretary read the minutes of the previous meeting, which were approved.

The Secretary-Treasurer presented his report, as follows:

#### REPORT OF SECRETARY-TREASURER.

In presenting this, my first annual report, I wish to thank the President, Dr. E. T. Coleman, the members of the Council, the chairmen and members of the various committees and the Editorial Staff of the Journal for their active cooperation and help throughout the year. The Association has made a splendid record; in fact, one that every officer and member should feel proud of, but such would have been impossible except for the enthusiastic support rendered the officers



by the members from every section of the state. I fully realize the difficulties and obstacles encountered by a new Secretary-Treasurer who assumes office totally unfamiliar with the duties and obligations of his position. I have tried faithfully to serve the profession in Georgia, and assure you that any mistakes or omissions have been of the head and not of the heart, realizing fully that "many things have been left undone which should have been done, and many things done which were better left undone."

Notwithstanding the increase in annual dues from three of five dollars and the very great financial depression at this time we are glad to report a greater paid up membership than for any year in the history of the Association. We now have 1354 members whose dues have been paid for the year. We hope to increase this by 300 or 400 more between now and the end of the year. We have reports from 86 County Societies with only twelve more to report. Those which have not reported are mostly counties with a small membership, widely scattered, and hence difficult to keep organized. We wish to commend the Councillors for combining the membership of two or more Counties to form component societies. This gives a greater membership to the component society, a larger attendance and hence furnishes more and better opportunities for a successful society. No doubt a number of other societies might be brought together in this manner both for the benefit of the members themselves and the Association.

In reference to the Journal of the Association we are pleased to report that every issue has been published and mailed during the month of issue. Hence we have had no numbers delayed beyond the month of issue. This has occurred notwithstanding the fact that there were two strikes in the Index Printing Co., which printed the Journal for us the greater part of the year, and also there is a strike of the printers and linotype men now in progress in the Byrd Printing Co., which is at present printing the Journal.

To Dr. M. C. Pruitt, the Business Manager, is largely due the credit for the prompt issuance of the Journal. We are now publish-

ing a sixty-four page Journal which compares very favorably with most state journals. It is carrying from eighteen to twenty pages of paid advertising. Here again Dr. Pruitt has rendered valuable service in securing both local and general advertising contracts. He has had practically no complaints from advertisers and approximately all of the old contracts have already been renewed for next year. It is interesting to note that at the beginning of the year there was due the Journal \$910.00 for old ads, all of which has been collected. At the present time there is owing to the Journal only \$139.50 on past due ads. We earnestly solicit the support of every member of the Association to help us get out a worth-while Journal. We hope to have an even better report in reference to it next year than at present. To all those who have contributed original articles, editorials, abstracts, book reviews, case reports, news items and other valuable service we extend our thanks.

In reference to the financial condition of the Association, a detailed report will be found appended hereto. Although our expenses during the year have been unusually heavy, especially in regard to public policy and legislation, it will be noted that we now have on deposit more money than at any previous annual meeting. We are glad to report that the Council, acting as the Finance Committee, has more clearly defined and limited the expenditures of the Association in matters pertaining to public policy and legislation.

The professional and co-operative spirit has been remarkable. Factionalism and strife have no place in our Association, and they have been conspicuous by their absence. I do not believe there is a state in the Union which can boast of a more loyal, steadfast, intelligent and earnest medical profession than the State of Georgia and the Medical Association of Georgia represents the best in that profession.

#### FINANCIAL STATEMENT.

Balance on hand May 1, 1920:	
On deposit, Citizens and Southern Bank,	
Atlanta .....	\$ 3,504.29
On deposit, Merch. and Mech. Bank,	
Augusta .....	1,000.05
Total on hand, May 1, 1920.....	\$ 4,504.34



Amount received from all sources to May 1, 1921 .....	10,801.22
Total .....	\$15,305.56

Total expenditures as per vouchers below..	\$10,640.67
Balance in citizens and Southern Bank, May 1, 1921 .....	4,664.89
Total .....	\$15,305.56

## EXPENDITURES AS PER VOUCHERS ATTACHED.

90 W. C. Lyle (bal. on salary).....	\$ 75.00
91 Index Printing Co. (bal. due on printing up to Apr. 23, 1920).....	857.28
92 S. R. Roberts (delegate to A.M.A.).....	100.00
93 H. H. Martin (delegate to A.M.A.).....	100.00
94 C. K. Sharp (Councillor, this check for \$17.26 was lost in mail by Bank of Arlington. Not cashed. Replaced by check No. 114) .....	
95 V. O. Harvard (Councillor).....	40.60
96 Foote and Davies Co. (office desk, supplies and chair).....	131.00
97 Anthony's Print Shop (printing).....	5.00
98 Pub. Pol. and Leg.....	100.00
99 Pub. Pol. and Leg.....	75.00
100 B. H. Jones, postmaster (mailing Journal) .....	15.00
101 Wm. Englebach (guest of Assn. expenses) .....	63.79
102 Allen H. Bunce (salary May 15-July 15) .....	300.00
103 Pub. Pol. and Leg.....	75.00
104 B. H. Jones, postmaster (stamps).....	11.00
105 C. K. Sharp (Pub. Pol. and Leg.).....	27.16
106 Underwood Typewriter Co. (exp. on typewriter) .....	5.00
107 B. H. Jones, postmaster (stamps).....	5.00
108 W. H. Hendricks (Pub. Pol. and Leg.)..	75.00
109 Wm. Whitford (official stenographer)....	196.94
110 Index Printing Co. (printing Journal)...	893.26
111 J. B. Mallet (Pub. Pol. and Leg.).....	200.00
112 Underwood Typewriter Co. (rep typewriter) .....	5.00
113 B. H. Jones, postmaster (stamps).....	5.00
114 Bank of Arlington for C. K. Sharp to replace check No. 94. See voucher No. 94 .....	17.26
115 J. I. Matthews (Pub. Pol. and Leg.).....	3.13
116 W. E. McCurry (Pub. Pol. and Leg.)....	1.24
117 T. C. Thompson (Pub. Pol. and Leg.)...	30.50
118 L. C. Allen (Pub. Pol. and Leg.).....	22.78
119 Foote and Davies Co. (office supplies)...	5.70
120 Southern Engraving Co. (cuts for Journal) .....	5.00
121 Harvey R. Gaylord (guest of Assn. expenses) .....	100.00
122 J. P. Stephens Engraving Co. (stationery for President) .....	20.50
123 St. Louis Button Co. (buttons for meeting) .....	30.45
124 Southern Engraving Co. (cuts for Journal) .....	17.00
125 Lester Book and Stationery Co. (ledger) .....	2.80
126 Columbia Graph. Co. (exchange on dictaphone) .....	260.00
127 Addressograph Co. (repairs on addressograph) .....	2.15
128 Columbia Graph. Co. (preparing records) .....	3.00
129 Index Printing Co. (printing Journal)...	460.67
130 B. H. Jones, postmaster (stamps).....	6.00
131 G. C. Rogers, acting postmaster (mailing Journal) .....	11.99
132 Sou. Engraving Co. (cut for Journal)...	95.30
133 Pub. Pol. and Leg. (W. U. Tel. Co.)....	61.29
134 F. W. Goodroe (printing name plates for Addressograph for Journal) .....	45.00
135 Addressograph Co. (repairs).....	1.80
136 Southern Engraving Co. (cuts for Journal) .....	16.80
137 A. R. Craig, Sec. A. M. A. (dues A.M.A. for five men included in ck. County Sec. to State Assn.) .....	25.00
138 G. C. Rogers, acting postmaster (stamps, Pub. Pol. and Leg.) .....	10.00

139 Bayliss Office Equipment Co. (office supplies) .....	6.60
140 Index Printing Co. (printing Journal)...	428.48
141 Underwood Typewriter Co. (repairing typewriter) .....	19.00
142 Sou. Engraving Co. (cuts for Journal)...	16.00
143 Index Printing Co. (printing Journal)...	392.34
144 Voucher destroyed. Error in making out	
145 G. C. Rogers, acting postmaster (stamps) .....	5.00
146 Owens Johnson, attorney for Assn. (Med. Def. and Pub. Pol. and Leg.)...	750.00
147 G. C. Rogers, acting postmaster (stamps) Pub. Pol. and Leg.....	20.00
148 Index Printing Co. (printing Journal)...	385.14
149 Addressograph Co. (repairs) .....	1.40
150 Columbia Graph. Co. (preparing records) .....	3.60
151 Sou. Engraving Co. (cuts for Journal)...	13.00
152 Underwood Typewriter Co. (exchange for new machine) .....	82.50
153 Allen H. Bunce, (on salary).....	735.00
154 Allen H. Bunce, Sec.-Treas. (bal. on salary to Dec. 31, 1920) .....	90.00
155 W. C. Latimer, attorney (med. defense) .....	250.00
156 Pub. Pol. and Leg. (stamps and letters) .....	50.00
157 Allen H. Bunce (Pub. Pol. and Leg.)...	45.45
158 E. C. Thrash (Pub. Pol. and Leg.).....	42.50
159 Pub. Pol. and Leg. ....	75.00
160 G. C. Rogers, acting postmaster (mailing Journal) .....	15.00
161 Arnold Broyles, Clerk Superior Court (Med. Def.) .....	7.35
162 Pub. Pol. and Leg. ....	20.00
163 Dixie Seal and Stamp Co. (rubber stamps) .....	2.33
164 Index Printing Co. (printing Journal)...	472.68
165 Southern Engraving Co. (cuts for Journal) .....	24.00
166 Gordon W. Donaldson (stationery and printing circular letters and forms for County Society reports) .....	197.75
167 Lester Book and Stationery Co. (card book and blank book).....	3.75
168 Allen H. Bunce (salary, Jan.).....	150.00
169 Index Printing Co. (printing Journal)...	339.76
170 G. C. Rogers, acting postmaster (stamps Journal) .....	10.00
171 Index Printing Co. (printing Journal)...	162.00
172 G. C. Rogers, acting postmaster (deposit Journal) .....	10.00
173 Southern Engraving Co. (cuts for Journal) .....	37.00
174 Columbia Graph. Co. (memo. pads)....	.60
175 Byrd Printing Co. (printing Journal)...	305.00
176 Lester Book and Stationery Co. (office supplies) .....	1.25
177 Allen H. Bunce (salary, Feb.) .....	150.00
178 G. C. Rogers, acting postmaster (stamps) .....	10.00
179 Allen H. Bunce (salary, Mar.) .....	150.00
180 C. K. Sharp (councillor) .....	18.08
181 A. J. Mooney (councillor) .....	98.20
182 Byrd Printing Co. (printing Journal)...	321.00
183 Horne Desk and Fixture Co. (filing case) .....	45.00
184 G. C. Rogers, acting postmaster (stamps) .....	10.00
185 Mass. Bonding Co. (bond Sec.-Treas.)..	7.50
186 Voucher not yet cashed. Outstanding.	
187 W. M. Moon (form letters).....	5.00
Debit slips from Bank:	
Dec. 15, 1920. Debit slip (error in addition of deposit slip) .....	2.00
Jan. 21, 1921. Debit slip (ch. returned N. S. F. \$5.00, and Bank in hands of State Banking Dept. ck. \$5.00).....	10.00
Feb. 26, 1921. Debit slip (ck. returned N. S. F.) .....	25.00

Total expenditures .....\$10,640.67

## REPORT OF AUDITING COMMITTEE.

We the committee appointed to audit the books of the Secretary-Treasurer for the

Council beg to report that we have examined the records of this office and find them correct.

C. K. Sharp, Chairman.  
H. W. Terrell,  
J. O. Elrod.

For obvious reasons a detailed statement of the accounts under Policy and Legislation and Medical Defense is not attached, however the books of the Secretary-Treasurer are open for the inspection of any member of the Association. In reference to Public Policy and Legislation the Association is indebted to the Fulton County Medical Society for a donation of \$412.35. In addition to this the committee from the Fulton County Society headed by Dr. E. C. Thrash, as Chairman, rendered invaluable service to the State Association in its legislative policy.

In compliance with the resolution passed by the Council at the annual meeting in 1920 herewith is attached a complete list of all office furniture and fixtures owned by Association:

One Addressograph and filing cabinet for name plates.

One oak filing cabinet with four drawers.

One Underwood typewriter.

One Dictaphone—A No. 3. B-7.

Typewriter desk and chair.

Shaw-Walker letter file—solid steel—four roller.

Respectfully submitted,

ALLEN H. BUNCE, M. D.,

Secretary-Treasurer.

It was moved and seconded that the report be accepted. Carried.

Under the head "unfinished business," the Secretary presented the amendment which was offered by Dr. McCurry at a previous meeting of the House of Delegates.

After considerable discussion on this amendment, Dr. W. C. Lyle moved that the Committee on Scientific Work be allowed the privilege of extending the courtesies designated in this proposed amendment to not more than two delegates from each state instead of three. Seconded by Dr. Palmer.

Dr. J. O. Elrod moved to further amend

that delegates from other states shall only be permitted to read papers on invitation of the Committee on Scientific Work.

The amendment of Dr. Elrod was seconded, accepted, and the motion as amended was put to a vote and carried.

Dr. Lyle moved that the President of the Medical Association of Georgia be empowered to appoint delegates, not exceeding two in number, to such state associations as are accredited with exchange delegates to this association.

Seconded and carried.

The Secretary presented the amendment which was offered by Dr. L. C. Allen at a previous meeting of the House of Delegates regarding medical defense.

The amendment was read by the Secretary.

Dr. Thrash moved that the amendment be laid on the table.

Seconded and carried.

Dr. W. A. Mulherin presented the following resolution:

"Whereas, the conservation of human life is one of the basic principles upon which the Medical Association of Georgia is founded, and

"Whereas, it is definitely and positively shown, by comparisons with other states, that the State of Georgia is losing by deaths from diphtheria more than twice as many children as it should lose, and

"Whereas, this useless loss of children's lives can be prevented by the adoption by our state, of the free distribution of diphtheria antitoxin, for rich and poor, white and black alike, and

"Whereas, the adoption by our state of free distribution of diphtheria antitoxin will save the citizens of our state some thirty thousand to forty thousand dollars a year, therefore, be it

"Resolved, That the Medical Association of Georgia goes on record as fostering and earnestly praying our state legislature to make sufficient appropriation to give to our state the life saving and much needed benefits to be derived from the free distribution of diphtheria antitoxin."

Dr. Lyle moved that the resolution be



adopted, and that it be referred to the Committee on Public Policy and Legislation.

Seconded by Dr. Lattimore and unanimously carried.

The Secretary presented the following communication, which was signed by Drs. R. M. Harbin, Ralston Lattimore and Stewart R. Roberts:

"The Medical Association of Georgia, annual meeting, Rome, Georgia, May, 1921, desires to express its appreciation to Dr. T. F. Abercrombie, Commissioner of Health and Secretary of the State Board of Health, to the Board of Health and to all the directors of the different departments of the State Board of Health for their effective and most efficient work during the present administration of the Commissioner of Health. Secondly, the Medical Association of Georgia desires to express its approval of the workings of the Ellis County Health Law. This is illustrated by the tremendous improvement in such counties as Colquitt, and Thomas in the disease malaria since the Ellis law has been put into effect.

"Second. The Medical Association of Georgia wishes to call attention of the State Board of Health, the Governor and the State Legislature to the effect that less than one per cent. of the state appropriation of the state legislature is for the protection of the people's health, and that the people's health with limitations is purchasable.

"Lastly, the Medical Association of Georgia desires to call attention of the Governor and the legislature and the State Board of Health to the fact that Georgia appropriates less per capita for health and to the State Board of Health than Alabama, Virginia, North Carolina, South Carolina and Florida. Georgia appropriates only 3.01 cents per capita, Alabama, 6.03, Virginia 6.07, North Carolina 7.09, South Carolina 9.02 and Florida 18.02 cents per capita for the protection of the people's health.

Respectfully submitted,

R. M. Harbin,  
Ralston Lattimore,  
Stewart R. Roberts."

Dr. Elrod moved that the communication be adopted.

Seconded and carried.

Dr. Palmer moved that the House of Delegates place itself on record as condemning compulsory health insurance. (Motion not seconded.)

Dr. Palmer moved that the House of Delegates put itself on record as favoring the election of a parliamentarian for the term of three years. Seconded. (As this is an amendment to the By-Laws, it lies over until the next annual meeting for action.)

Dr. Palmer moved that the House of Delegates place itself on record as endorsing a National Department of Health, and in connection therewith that the Association get in touch with the county secretaries and appeal to congressmen and senators to favor and vote for such a department.

Seconded and carried.

Dr. Lyle moved that a vote of thanks be extended to the City of Rome, the Floyd County Medical Society, the Seventh District Society, the Rotarians, the Kiwanians, and all others who have assisted in the entertainment of the Association.

Seconded and carried.

As there was no further business to come before the meeting, the House of Delegates adjourned sine die.

#### MAY 3—FIRST MEETING OF THE COUNCIL.

The Council met at 9 P. M., and was called to order by the Chairman, Dr. Harvard.

The Secretary read the minutes of the previous meeting, which were approved.

The following councillors reported briefly for their respective districts: Second District, Dr. C. K. Sharp; Third District, Dr. V. O. Harvard; Fourth District, Dr. H. W. Terrell; Fifth District, Dr. C. E. Thrash; Sixth District, Dr. J. O. Elrod; Eighth District, Dr. W. E. McCurry; Ninth District, Dr. L. C. Allen, and Eleventh District, Dr. R. C. Woodard.

In connection with the report of Dr. McCurry, Dr. Thash moved that the council



sustain him in his ruling on the two points mentioned. Seconded and carried.

The Secretary brought up the matter of the indebtedness to Dr. H. H. Martin of \$100 for 1918 and \$100 for 1919 as delegate to the American Medical Association.

Dr. Thrash moved that Dr. Martin be paid \$200.00. Seconded and carried.

The case of Dr. C. J. Maloy was brought before the Council and the correspondence read in connection therewith.

Dr. Thrash moved that inasmuch as an investigation of this case had been made and the credentials of Dr. Maloy were found questionable, the matter be left in the hands of the Telfair County Medical Society as to whether they want Dr. Maloy to continue in their Society and to fraternize with him.

Seconded and carried.

The chairman appointed Drs. Sharp, Elrod and Terrell to audit the books of the Secretary-Treasurer.

The Secretary introduced the matter of the Chiropractic Bill, and in connection therewith moved the adoption of the following resolution:

RESOLVED, That the Medical Association of Georgia instruct its committee on Public Policy and Legislation to use every available means to defeat any bill licensing chiropractors in the State of Georgia which may be introduced in this or succeeding sessions of the legislature, and that as much as \$500.00 be set aside for the use of this committee or as much thereof as may be necessary. Seconded.

Dr. Thrash moved as an amendment that the Council recommend to the Committee on Public Policy and Legislation and to the attorney, if they deem it expedient, and a bill is to be passed authorizing these men to practice, that those who are licensed to practice this year be placed on the same plane as to preliminary educational requirements and medical education as practitioners of the regular profession.

The amendment was seconded, accepted, and the resolution as amended was put to a vote and adopted.

The Secretary suggested in connection with the publication of The Journal, that a

committee from the council be appointed as publication committee with whom he can advise and consult in regard to matters pertaining to The Journal.

Dr. Allen moved that a committee of three members from the Council be appointed by the chair to be known as the Publication Committee, and that the duty of this committee shall be to consult and advise with the editor of the Journal regarding the general management of the same.

Seconded and carried.

The Secretary called attention to a vacancy on the Committee of Medical Defense, saying that the term of Dr. M. A. Clark had expired.

Dr. Thrash moved that Dr. Clark be elected on this committee.

Seconded and carried.

The Chairman said he would appoint the committee at the next meeting.

Dr. Elrod moved that the Secretary be instructed to have circulars printed explaining the defense feature of the Association, and that an appeal be made to those physicians who are not now members of the Association to become such.

Seconded and carried.

On motion of Dr. Palmer, a rising vote of thanks was extended to Dr. Buncie for the able and efficient manner in which he has conducted the Association Journal during the last twelve months.

Seconded and unanimously carried.

On motion, the Council adjourned to meet Thursday.

## MAY 6.—SECOND MEETING OF THE COUNCIL.

The Council met at 4:30 p. m., and was called to order by the chairman, Dr. Harvard.

On motion, which was seconded and carried, Dr. V. O. Harvard was re-elected chairman of the Council.

Dr. Harvard appointed the following Committee on Publication: Dr. W. E. McCurry, chairman, Dr. C. W. Roberts, Dr. E. S. Osborne.

On motion, the Council adjourned sine die.

**THE JOURNAL**

OF THE

**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia.

Office of Publication: 822 Healey Bldg., Atlanta, Ga.

**JUNE, 1921**

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Publication Committee

W. E. McCURRY, M. D. Chairman

C. W. ROBERTS, M. D.

E. S. OSBORNE, M. D.

Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****FELLOWS OF THE MEDICAL ASSOCIATION OF GEORGIA.**

We have completed one year of experiment in the advancement of fees to give us better protection against alleged malpractice cases, and in many ways this has been the most successful year in the history of the Association.

Despite the raising of dues from \$3.00 to \$5.00, the Secretary's report shows the largest enrollment in the Association's history. This means much more than one would first think. The past year from a financial standpoint has been the worst which we have had in twenty-five years. A certain percentage of membership in all organizations will invariably resent being called upon for an increase in fees. In any period of depression, the doctor is first to suffer, and

suffers more during the whole period than men in other lines of endeavor. In the face of all this making a showing of a record membership, the best Journal we have ever had, a meeting where practically every essayist who was on the program was present, and the whole program completed to the last essay, with happiness, harmony and earnest work prevailing throughout the whole meeting, with a full attendance in one of our most northerly cities, is nothing short of wonderful.

If such can be accomplished against odds and handicaps, think what we can do in the future! Is a hundred per cent membership for Georgia possible? Assuredly. It is not only possible but accomplishable. If the Councillors of the districts and secretaries of the respective counties were to make up their minds to get every man in their counties who is eligible to membership in the Medical Association of Georgia, to enroll in the respective county societies, in three months every eligible doctor would be a member of the Medical Association of Georgia. Is this worth while? Is it worth while to grow, to attempt to attain to our ideals, to devise the best means to give what is in us to society, to attain these results, to teach others our methods of arriving at them? If all these are worth while, then it is worth while to lay the foundation of organization upon which we must build our super-structure.

All we know is learned through the aid of others, and it is our duty to pour back into the fountain more than we have taken out, so we may pay back the debt with usury. We can intensify these processes only by organization and intimate association. Until every doctor in Georgia is giving all that is in him to alleviate suffering, and to add something to science, until he is registering one hundred per cent as physician and citizen, until organization attains to that degree of perfection that every doctor knows when and where to serve, how best to learn and how best to teach, our work is still unfinished.

Let's go, Doctors, and if your president is

at any time found lagging, it is his desire that you slap him in the face with this editorial while the ink is yet wet, so that these sentiments may make their imprints in reverse upon his brow.

—E. C. THRASH, M. D.

### NEWS ITEMS.

The meeting of the physicians of Clayton and Fayette Counties was held in the Court House at Jonesboro, at 3 p. m., April 25th, and after interesting talks by Dr. J. O. Elrod, of Forsyth, and Dr. M. C. Pruitt, of Atlanta, the Clayton-Fayette Society was organized. The following officers were elected:

President—Dr. O. T. Malone, Fayetteville, Ga.

Vice-President—Dr. G. Mullins, Fayetteville.

Secretary-Treasurer—Dr. H. D. Kemper, Jonesboro.

This Society started with the following members: T. C. Cannon, J. Z. Henry, H. D. Kemper, J. A. Lester, O. T. Malone, G. Mullins, J. L. Roebuck, J. R. Wallie and G. W. Wallie. Much enthusiasm for the future of this Society was shown at this meeting.

Jenkins County Medical Society announces the following officers for the year 1921:

President—Dr. J. L. Kirkendol, Millen.

Vice-President—Dr. Q. A. Mulkey, Millen.

Secretary-Treasurer—Dr. C. Thompson, Millen.

Delegate—Dr. C. Thompson.

Alternate—Dr. M. E. Perkins.

Board of Censors—Drs. Thompson, Mulkey and Kirkendol.

Blue Ridge Medical Society announces the following officers for the year 1921:

President—Dr. C. G. Cox, Ellijay.

Vice-President—Dr. A. L. Prince, Mineral Bluff.

Secretary-Treasurer—Dr. Claude B. Crawford, Blue Ridge.

Delegate—Dr. J. S. Tankersley, Ellijay.

Board of Censors—Drs. J. S. Tankersley, J. M. Daves and E. L. Prince.

The Jackson County Medical Society announces the election of the following officers for the year 1921:

President—Dr. J. B. Pendergrass, Jefferson, Ga.

Vice-President—Dr. F. M. Hubbard, Commerce, Ga.

Secretary-Treasurer—Dr. J. C. Bennett, Jefferson.

Delegate—Dr. W. C. Kennedy.

Board of Censors—Drs. S. J. Smith, M. F. Nelms and M. E. Allen.

The Chattooga County Medical Society announces the election of the following officers for the year 1921:

President—Dr. M. N. Wood, Summerville.

Vice-President—Dr. R. D. Jones, Summerville.

Secretary-Treasurer—Dr. W. B. Medlin, Summerville.

Board of Censors—Drs. L. A. Mallicoat and E. M. Jennings.

The Glynn County Medical Society announces the election of the following officers for the year 1921:

President—Dr. R. L. Fox, Brunswick, Ga.

Vice-President—Dr. J. P. Harrell, Brunswick.

Secretary-Treasurer—Dr. J. W. Simmons, Brunswick.

Board of Censors—Drs. H. M. Branham, C. B. Greer and G. W. Blanton.

The Stephens County Medical Society announces the election of the following officers for the year 1921:

President—Dr. J. E. D. Isbell, Toccoa, Ga.

Vice-President—Dr. W. H. Parker, Toccoa.

Secretary-Treasurer—Dr. C. L. Ayers, Toccoa.

Delegate—Dr. C. L. Ayers.

Alternate—Dr. J. H. Crawford.

Board of Censors—Drs. E. F. Chaffin, W. H. Parker and A. Craig.

Muskogee County Medical Society held its May meeting April 28th, 1921, so as not to



conflict with the State Association, and Dr. C. Amory Dexter presided. Business was rapidly disposed of and the committee on Vice Conditions in the city made their report, which was accepted. A special delegation with Dr. J. M. Anderson, Chairman, was appointed to go to Rome and invite the Medical Association of Georgia to Columbus for 1922. Dr. H. S. Munroe gave a lengthy and instructive talk on Endocrinology, which created so much enthusiasm **until practically every member present joined in the discussion.** There being no further business the meeting adjourned until June.

In reference to the special delegation of which Dr. J. M. Anderson was chairman, to invite the Medical Association of Georgia to Columbus in 1922, we do not know what brand he carried with him to Rome, but anyway it produced the effect so that he was able to bring about 100% service on this Committee. It is a question whether Dr. Anderson should be complimented, because this is no more than his fraternal friends expected, as he had been tried before.

The Board of Trustees, the Chancellor and Faculties of Emory University gave a reception in honor of the Graduating Classes of the University in the Theological Building, Emory University Campus on June 4th, Nineteen-twenty-one.

The Class of Nineteen Hundred and Twenty-one Grady Hospital Training School held their graduating exercises Monday evening, May thirtieth at half after eight o'clock, Auditorium of Grady Hospital Nurses Home, Atlanta, Georgia.

The following nurses received their diplomas:

Miss Durice Dickerson, Winter Garden, Fla.; Miss Mary Frances Hall, Talbotton, Ga.; Miss Irene Dixon, Barwick, Ga.; Miss Elsie Marshall, Sanford, Fla.; Miss Mary Frances Rushing, Greenville, S. C.; Miss Laura B. Peters, Birmingham, England; Miss Bessie G. Williams, Quitman, Ga.; Miss Daisy Bishop, Atlanta, Ga.; Miss Ruby Martina Latham, Jacksonville, Fla.; Miss Lillian Claire Tompkins, Fitzpatrick, Ala.; Miss

Erin Lucille Daniels, Atlanta, Ga.; Mrs. Albert D. Willis, Atlanta, Ga.; Miss Ola May Josey, Byronville, Ga.; Miss Bessie Holstein Smith, Atlanta, Ga.

The graduating class of the Piedmont Sanatorium Training School held their graduating exercises Thursday evening, May the twenty-sixth, nineteen hundred and twenty-one, at half after eight o'clock, Ansley Hotel, Atlanta, Georgia. The following nurses received their diplomas:

Miss Viola Clarke, Avalon, Ga.; Miss Grace Carmen Plott, Waynesville, N. C.; Miss Ethel Carter, Tifton, Ga.; Miss Maude Meroney, Salem, S. C.; Miss Emma Plunkett, Atlanta, Ga.; Miss Annie Laurie Howard, Rabun Gap, Ga.

The graduating class of Wesley Memorial Hospital held their graduating exercises on the evening of May the twentieth at half after eight o'clock, Wesley Memorial Church, Atlanta, Ga. The following nurses received diplomas:

Margaret Watrous, Tampa, Fla.; Mary Francis Braden, Acworth, Ga.; Martha Evelyn Dugger, Marlow, Ga.; Martha Townsend, DeFuniak Springs, Fla.; May Estes Tarver, Lineolnton, Ga.; Sarah Francis Hitchcock, White Plains, Ga.; Nelle Fitts, Carrollton, Ga.; Primrose Walker, Live Oak, Fla.

Dr. James R. McCord announces the removal of his office to 373 Courtland Street. (One door off Forrest Avenue.) May 1, 1921. Practice limited to obstetrics, gynecology, cystoscopy.

Dr. M. Ford Morris announces the removal of his offices to 1026-1027 Candler Bldg. Phone Ivy 7948. Hours 9 to 11.

Dr. Theo. Toepel announces the removal of his offices from 720 Candler Building to 78 Forrest Avenue. Phone Ivy 2712, Atlanta, Georgia.

The Woman's Auxiliary of the Georgia Baptist Hospital gave a reception for student nurses of the Georgia Baptist Hospital

at the Nurses Home, corner East Avenue and North Boulevard, Thursday, May twenty-six. Four to six.

Dr. Lewis M. Gaines announces the removal of his office to 23 Forrest Avenue, Atlanta, Georgia.

Dr. Thos. P. Goodwyn announces the removal of his offices to suite 819 Hurt Building. Practice limited to orthopedics.

### **Venereal Institute, Medical Department, Emory University.**

The Venereal Institute that is being arranged by the Medical Department of Emory University, Atlanta, on venereal diseases gives promise of being attended by a great many of the physicians of the state.

The schedule of lectures has not been completed, but will be announced in the next Journal. The Institute will be opened Monday, July 11, at Gray Clinic on Armstrong Street. Six periods of one hour each have been planned for each of the six days. The week will be closed by Dr. T. F. Abercrombie, Commissioner of Health, as chairman, when the men who have been in Atlanta will hold a symposium on the week's work. No arrangements will be made for work during the evening hours, but no doubt various entertainments will be had. It is likely that every hospital in the city will be thrown open to the visiting doctors and special parties will be organized for visiting them.

Fulton County Medical Society will hold a regular monthly meeting on the evening of July 14; a special program will be arranged for the visitors taking charge for a two or three hour's symposium.

The high altitude of Atlanta offers a prospect of a good mid-summer week. The "Atlanta spirit" will be warm, and a most cordial welcome awaits every physician who comes to the city for a week's study.

Dr. J. H. Nanzetta, Columbus, Ga., who was indicted recently by the grand jury on two counts, was arraigned before the court May 26, 1921 and found guilty on both counts. May 27th, 1921 he appeared before

Judge Munro and was fined \$250, which he paid. One of the counts was that he practiced medicine without a license, and the other that he did not register with the clerk of the county as prescribed by law. The defendant was represented by George C. Palmer and Ed Wohlwender and the state by Solicitor General O. Frank McLaughlin.

### **DEATHS.**

Dr. W. J. Dismuke, of Ocilla, Georgia, died May 13, 1920, after operation for appendiceal abscess. He was 48 years old. Graduate of Augusta Medical College 1901. He was senior partner of the firm of Dismuke & Willis, doing general practice and surgery. Surgeon, Dismuke & Willis private hospital. Local surgeon S. A. L. R. R., member of A. M. A., Southern Medical and Georgia Railroad Surgeons, State and County Societies.

### **SURGICAL ABSTRACTS**

By Edgar H. Greene, M. D.

*D. P. D. Wilkie—Carcinoma of the Appendix, Causing Diverticula of the Appendix and Acute Appendicular Obstruction.*—The British Journal of Surgery, 1921, VIII, 32.

About three hundred cases of primary carcinoma of the appendix have been reported. Most of the cases were found by routine pathological examinations following appendectomy or at post mortem.

The author had three cases in eighteen months and they proved interesting because in each the presence of the growth in the appendix obstructing its lumen, led to very definite acute symptoms, which called for operation. The three cases are reported briefly in the article, together with the pathological reports. In all, the carcinoma situated near the proximal end of the appendix, gave rise to symptoms of acute appendicular obstruction, which in two cases resulted in immediate surgical intervention. The third case had repeated attacks for a year until the appendix was removed.

In two cases, the obstruction caused a chronic increase in tension in the appendix,

leading to diverticula formation. One resulted in perforation.

The three cases were typical of appendix carcinoma in: (1) The early age incidence (15, 22, and 17 years respectively); (2) The spheroidal-cell type of growth; (3) The absence of metastatic glandular involvement.

The author shows by statistics from various writers that the disease is not infrequent, but probably often overlooked; and that it is evidently predisposed to by the chronic inflammatory changes which tend to obliterate the lumen of the appendix.

The disease appears to be a peculiarly benign or carcinoid type and differs from all other intestinal growths with the possible exception of carcinoma sometimes found in the lower ileum.

The writer states that there is no authentic case of metastasis following carcinoma of the appendix.

We would regard primary growths of the appendix as of relatively benign character, but dangerous because of the liability of subsequent acute obstruction and inflammatory complications.

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*John E. Summers—Enterostomy in the Treatment of Acute Intestinal Obstruction—Surgery, Gynecology and Obstetrics, 1921, XXXII, 5.*

In 1676 Paul Barbette, of Amsterdam, advised opening the abdomen in obstinate volvulus and intussusception. In 1772, Renault performed the double operation of gastrotomy and enterostomy on a young man who had symptoms of internal strangulation a few days following an operation for strangulated hernia. The small intestine was strangulated throughout a part of its course, so he made an artificial anus. Twenty-eight days later, the fecal matter passed by its normal outlet and the wound was completely cicatrized.

Several French surgeons successfully practiced abdominal section, in the early days, for intestinal obstruction, however Nalaton firmly established the procedure of enterostomy as a life-saving measure in the treatment of acute intestinal obstruction. The

operation is still known by his name. Nalaton made a small incision in the right iliac fossa and sutured into the wound the first coil of distended intestine that presented. The bowel was opened immediately or some hours later according to the urgency of the symptoms.

This type of operation has been performed frequently since Nalaton's time, but some changes have been made, i. e. instituting drainage through glass tubes (Paul's), or suturing rubber tubes into intestine.

Today, surgeons perform primary enterostomy as a life saving procedure followed later by abdominal section, if necessary to relieve the cause of obstruction. Some do a combined operation, and some go still further and include peritonitis ileus in this field, and remove the focus causing the peritonitis (as a gangrenous appendix) draining the distended intestine through the same incision.

The high mortality in acute intestinal obstruction (about 50 per cent) appears to be due to late performance of operation.

Bonney in 1910 advised opening the jejunum in these cases. He divides, for classification, the obstructed intestines into three segments: (1) the lower more or less collapsed; (2) the middle, containing gas, and (3) the upper, containing fluids. The writer has found the lower and middle segments to contain gas chiefly and the upper segment most of the fluids. The character of the vomitus indicates the height of the fluid containing segment.

At first, in all types of obstruction, the vomitus is stomach contents; later in all types, the vomitus becomes faeculent and the stomach and jejunum are in "the segment of toxicity." In 1916, Bonney again recommended jejunostomy in intestinal obstruction, when the vomitus is intestinal or faeculent, and said that the drainage should be in the "segment of toxicity." This operation is nearly always followed by an immediate cessation of vomiting. Technique: A relatively high left rectus incision is made and a large-sized catheter for drainage, is introduced into the jejunum and fastened in position by a double purse-string suture. After



a few days the catheter comes away and the abdominal wall rapidly closes.

The writer approves of this operation, but believes that unless the vomitus is frankly feculent, the drainage tube should be introduced into the highest segment of distended bowel; this is to be determined by abdominal section to locate cause of obstruction. If the small intestine is found to be much distended, the coils farthest away from obstruction are heavy, containing liquid; those nearest obstruction are light, containing mostly gas. The contents of the heavy coils should be evacuated by several openings, leaving a drainage catheter sutured in the highest opening and then suturing the others. Local anaesthesia, aided by gas if necessary, is advised for this operation.

#### ABSTRACTS FROM MEDICAL LITERATURE.

By M. F. Morris, Jr.

**Congenital Hypertrophic Stenosis in Infants**—Nixon (Medical Record, March 12, 1921) reminds us that this condition occurs in one out of every two hundred babies. He places considerable value on the use of the flouroscope and the administration of atropine in making a differential diagnosis. Hypertrophic pyloric stenosis should be suspected in any infant who develops persistent vomiting, gastric peristaltic waves, pyloric tumor, non-fecal stools, loss of weight, and other minor symptoms. Nixon considers this condition as a surgical one, and he recommends the Fredet-Rammstedt operation.

**Thick Cereal in the Treatment of (Infantile) Pyloric Stenosis**.—Sauer (International Clinics, Vol. 1, 1921) states that it is well known that a majority of cases of pyloric stenosis in infants recover without surgical interference. Several non-surgical methods of treatment have been tried with some success, but the use of thick cereal has given the best results. Sauer usually begins this treatment with the following formula: Skimmed milk, 9 ounces, water, 12 ounces, farina, or rice flour, or barley flour, 6 tablespoonsful, and dextri-maltose, 3 tablespoonsful. Sugar and salt may be added. This mixture is

boiled for an hour or more, until it will adhere to an inverted spoon. Two to six tablespoonsful of such cereal, warmed, may be given from six to seven times a day. One should try first to give a little of the cereal before nursing. If this does not stop the vomiting, four thick cereal feedings and three breast feedings a day may be tried. If this latter plan fails, all feeding should consist of thick cereal. After each feeding, the child should be placed on its right side. Very little fluid is given by mouth for the first few weeks, but water is given very regularly by the rectum. After several weeks, one may gradually substitute ordinary milk mixtures for the thick cereal. Thus far, 32 cases have been treated with 24 recoveries without operation. Sauer realizes that thick gruel is not a panacea for pyloric stenosis, for there are unquestionably cases which do not respond to this treatment—such cases belong to the surgeon.

**Progressive Muscular Atrophy**.—F. S. Palmer presented a case before the West London Medico-Chirurgical Society (reported in *Lancet*, Feb. 19, 1921) of a man of 73 years. The disease was advanced, although symptoms had been present only 14 months. The entire right arm was markedly wasted and flail-like, and vaso-motor changes were present in the hand on that side. Wasting was most evident about the shoulder. The left arm was affected to a less degree. Fibrillary tremors were present, but sensory changes were not. Palmer was treating the case by electrical stimulation of the affected muscles and by the administration of a strychnine tonic, but he knows of no form of therapy which had any really beneficial effect on the course of the disease.

**Silver Salvarsan in The Treatment of Syphilis**.—Major Watson of the U. S. Army relates (in *Am. Jour. Med. Sciences*, March, 1921) the results of treating more than 800 patients with this new compound. Wilson believes that silver salvarsan is the strongest spirocheticide and the least toxic of all the arsenobenzol preparations which have been introduced. The results obtained in primary syphilis on the Wasserman reaction are as

good as, if not better than, those obtained with any other arsenobenzol preparation used in combination with mercury. In secondary syphilis, the Wasserman reaction reversed to negative with mercury and silver salvarsan as rapidly as it did following the use of any other arsenobenzol preparation and mercury. Mercury should be given, in addition to silver salvarsan. Treatment should begin with 0.01 gm. silver salvarsan, with a gradual increase in the dosage to 0.2 gm. for women and to 0.25 gm. for men, with an interval of four days between injections. The injections are given intravenously, and 10 c. c. of water should be used as solvent for each 0.1 gm. of the drug. Great care should be taken to prevent any of the solution from getting into the peri-venous tissues.

Studies on the Renal Threshold for Glucose.—Goto and Kuno (Archives of Internal Medicine, Feb. 1921) made tests on 55 normal Japanese adults. They found that the average blood sugar content, after an overnight fast, was 0.092 per cent. After the ingestion of 100 gms. of glucose, the blood sugar content nearly always increased. Following the ingestion of this amount of glucose, 33 of the 55 persons excreted sugar in the urine in amounts between 0.025 and 0.795 gm. Persons who did not excrete sugar averaged 0.089 per cent blood sugar on the morning after the all night fast. Persons who did excrete sugar averaged, after the over-night fast, 0.093 per cent blood sugar. Whether sugar was excreted in the urine or not, the alimentary hyperglycaemia reached its maximum within 40 to 60 minutes after the ingestion of the glucose, and the blood sugar values became normal within three hours.

Clinical Significance of Urobilin.—In a paper read before the N. Y. Academy of Medicine (abstracted in Medical Record, March 19, 1921) Bauman found that urobilin was increased in pernicious anaemia and in diseases of the liver. He also showed that urobilin estimations were of value in differentiating primary from secondary anaemia.

Relationship Between Renal and Glycosuria and Diabetes.—Geyelin, also in a paper read before the N. Y. Academy of Medicine, discussed five cases of glycosuria, three of which showed some evidence of what is known as renal glycosuria. The two other cases were rather clear-cut examples of this condition. The criteria quite generally accepted at present of the condition known as renal glycosuria are: (1) glycosuria without hyperglycaemia, (2) glycosuria in which the excretion of sugar is almost or entirely independent of the carbohydrate intake, and (3) glycosuria without symptoms of diabetes mellitus. Some observers have observed a fourth requisite, namely, the failure to develop subsequently diabetes.

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#### THE CLINICAL APPROACH TO SYPHILIS, WITH SUGGESTIONS FOR ITS REVIVAL AND DEVELOPMENT.

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By John H. Stokes, A.B., M. D. *Archives of Dermatology and Syphilology*, Vol. 2, No. October, 1920.

---

The first requirement for the development of proficient clinical service is a proficient syphilographer. His success must be measured by his ability to secure the co-operation of his colleagues. He must inspire them to contribute their diagnostic acumen to the study of some particular aspect of this disease. He must be able to check up the results of individual, diagnostic, therapeutic, and research procedures against the knowledge of the disease as a result of such experience. There is the necessity of the diagnostic instinct, and finally, the ability to master data.

One of the most serious difficulties to be overcome in creating ideal clinical syphilology is the tendency of clinicians to fall into routine ways and "unconsciously carry in their minds a few syphilological *ipse dixits*." An ideal syphilologist must have discernment and must not rely entirely on the more or less established *ipse dixits*. Another difficulty is the naturalness of subjectivism. Great effort should be made to overcome im-



pressionism which is liable to creep in most unconsciously.

In time it is to be hoped that the field of syphilology will be able to obtain an estimate of the prognosis of syphilis very much in the same way as Dreyer obtains an estimate of the prognosis in tuberculosis.

With all the other demands made for development, the importance of records cannot be overlooked. An ideal record system for syphilis must contain definite information in terms of time and quantity on the following points:

1. Negative as well as positive findings.
2. The personal resistance of the patient to infection and evidence of individual peculiarities in the course of the disease.
3. Data from which to infer on definite knowledge in regard to the strain and peculiarities of the infecting organism.
4. The duration of the disease.
5. The type, duration, and intensity of treatment.

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**VENEREAL DISEASES — PHYSICIAN'S RESPONSIBILITY FOR THEIR CONTROL.**—By Millard Knowlton, M. D. *Modern Medicine*, Vol. III, No. 1, January, 1921.

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The venereal diseases are for the physicians alone. Osteopaths, chiropractors, and Christian Scientists are constrained to withdraw from the field. This adds a greater responsibility to the medical man. He must in the first place be thorough. Carelessness impresses the patient unfavorably and he loses faith in the medical profession. If the medical profession is to maintain its prestige and the confidence of the public it must be able to meet the increasing demands of an enlightened public.

Remembering that each uncured case of venereal disease is dangerous to the public, the physician must either undertake to give the best possible treatment or refer him to a physician who will. It is within the physician's power and his responsibility to see that proper treatment is given to all sufferers, regardless of race, color, or social posi-

tion. Most patients can afford to pay a reasonable fee, and for those in an infectious stage who cannot, the boards of health provide arsphenamine free. It is up to the physician to be big-hearted enough to see that the drug is properly administered.

In rural states, it is proposed that the medical men of each community confer and select one man who is willing to make a specialization of the study of venereal diseases. This man, who thus qualifies himself should be selected to treat the indigent patients. This plan would be advantageous to the medical profession and to the public.

It is the duty of the medical men to prevent spread of venereal diseases by the proper treatment of the existing cases. For the best results, united and co-operative efforts for encouraging specialization are required.

---

The following Bill was introduced in the Legislature, State of Florida, April 16th:

#### A BILL TO BE ENTITLED

AN ACT to Prohibit the Manufacture, Shipment and Sale of "Bleached" and "Self-Rising" Flour in the State of Florida; to Prescribe Penalties for Violation of this Act and to Repeal All Laws and Parts of Laws in Conflict Herewith.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF FLORIDA.

SECTION 1. That for the purpose of this Act it shall be unlawful for any person, firm or corporation to manufacture, sell, offer or expose for sale in this State any flour that has been bleached by a chemical process or otherwise or any flour with which any ingredients have been mixed for leavening purposes.

SECTION 2. That whoever shall violate any of the provisions of this Act shall be punished by a fine not exceeding five hundred dollars, or by imprisonment for not more than six months, or by both fine and imprisonment in the discretion of the Court.

SECTION 3. That the execution of this law shall be under the general provisions, rules and regulations of the Pure Food and



Drug Law, Chapter 6122, Laws of Florida, and amendments thereto.

SECTION 4. That all laws and parts of laws in conflict herewith be and the same are hereby repealed.

SECTION 5. That this Act shall take effect ninety days after its passage and approval by the Governor.

The following is a notice from the Tampa Tribune of April 17th, which is self-explanatory:

**McRae Would Put a Ban on Bleached and Self-Rising Flour.**

Tallahassee, April 17.—(Special)—There was a bill introduced in the House of Representatives this morning which will perhaps make the housewives and cooks all over the state sit up and take notice. Many of them will perhaps want to have something to say to the introducer of the bill.

Reference is here made to a bill by Mr. McRae of Santa Rosa County. It provides that there shall be no more "bleached or self-rising flour" sold in this State.

The reading of the title to the bill disclosing its purpose provoked a general laugh in the house, but it is predicted by many persons here inside and outside the membership of the legislature that there will be "something doing" among the breadmakers of the state beside a laugh. The bill was referred to the committee on agriculture.

While it is no doubt better to use whole wheat flour than white flour because the vitamins are in the cortex of the wheat grain; the vitamins may be supplemented by other articles of diet. Bleached flour if made from sound grain can give no bad results. Self-rising flour contains less baking powder than is ordinarily used in making bread and is evenly distributed. The connection between self-rising flour and pellagra seems rather far-fetched, unless we condemn all white bread, and starchy foods, and all baking powder breads.

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### County and District Secretaries

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## UNITED STATES CIVIL SERVICE EXAMINATIONS.

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Applications will be rated as received until August 1, 1921.

The United States Civil Service Commission announces open competitive examinations for the positions listed above. Vacancies in the Public Health Service throughout the United States, in the position of roentgenologist at \$200 to \$250 a month, associate roentgenologist at \$130 to \$180 a month, assistant roentgenologist at \$90 to \$130 a month, junior roentgenologist at \$70 to \$90 a month, and vacancies in positions requiring similar qualifications, at these or higher or lower salaries, will be filled from these examinations, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

**Age and physical condition.**—Applicants must have reached their eighteenth but not their seventieth birthday on the date of making oath to the application, and must be in good physical condition. In view of the retirement act, at the request of the appointing officer certification will not be made of eligibles who have reached their fifty-fifth birthday.

**Retirement.**—Classified employees who have reached the retirement age and have served fifteen years are entitled to retirement with an annuity. The retirement age for railway mail clerks is 62 years, for mechanics and post-office clerks and carriers 65 years, and for others 70 years. A deduction of 2½ per cent is made from the monthly salary to provide for this annuity, which will be returned to persons leaving the service before retirement with 4 per cent interest compounded annually.

**Photographs.**—Applicants must submit with their applications their unmounted photographs, taken within two years, with their names written thereon. Proofs or

group photographs will not be accepted. Photographs will not be returned to applicants.

**Applications.**—Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass., New York, N. Y., New Orleans, La., Honolulu, Hawaii; Post Office, Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Calif., Denver, Colo.; Old Customhouse, St. Louis, Mo., Administration Building, Balboa Heights, Canal Zone; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

Applications should be properly executed, including the medical certificate, and filed with the Civil Service Commission, Washington, D. C., without delay.

The exact title of the examination desired, as given at the head of this announcement, should be stated in the application form.

**Answers in applications.**—Applicants should submit with their applications, and as a part thereof, complete answers to the following questions, numbering their answers to correspond to the numbers of the questions.

In answer to Question 28 of the application form, state what experience (giving dates) you have had in the following:

(a) Installation, maintenance and repair of X-ray apparatus.

(b) Making of plates and films, according to commonly accepted standards of X-ray posturing.

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In answer to Question 29 of the application form, state the minimum salary you are willing to accept—

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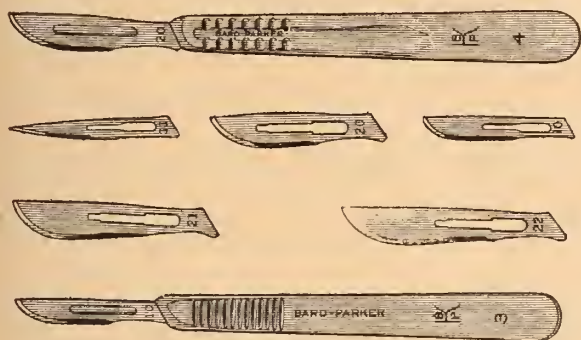
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Volume X

ATLANTA, GA., JULY, 1921

No. 14

### ORIGINAL ARTICLES

**CRAWFORD W. LONG.\***

#### **A Tribute and Plea for Appropriate Recognition in the Hall of Fame at Washington.**

Garnett W. Quillian, M.D.

Visiting Gynecologist to Grady (City) Hospital and St. Joseph's Infirmary,  
Atlanta, Ga.

"A lie that is all a lie  
May be met outright;  
A lie that is half a truth  
It a harder matter to fight."

The purpose of this paper is not to enter into an argument concerning the justice of the claim of Dr. Crawford W. Long. That he first used ether as an anaesthetic for a surgical operation March 30, 1842,—more than four years prior to its use by any other claimant for this distinction—has been conclusively proven by Dr. J. Marion Sims in his article published in 1877 in the *Virginia Medical Monthly*, pages 81-100, and again shown conclusively by Dr. Hugh Young in his paper published in the *Johns Hopkins Bulletin* in 1897, and finally by Dr. Joseph Jacobs in his booklet published in 1919.

The purpose of my directing your attention for a time therefore to Crawford W. Long is to recall attributes of his life for our inspiration, to suggest that each year some one be appointed to pay him merited tribute at our annual gatherings, to suggest that this association request an impartial investigation by an impartial committee from the

American Medical Association to establish finally and securely his claim, and to appeal to you and through you to the citizenry and Legislature of our State to pay to his memory the debt of gratitude and merited praise which is essential, by placing his statue in the Hall of Fame at Washington in recognition of his distinguished service to humanity as one of the greatest benefactors of all time.

It is essential because recently the Senate of the University of New York unjustly designated Dr. William Thomas Green Morton of Massachusetts as worthy of a place in the University's Hall of Fame as the discoverer of anaesthesia, and if we delay longer to pay just tribute to our own worthy illustrious son by erecting an enduring statue to his memory, we lose our opportunity to circumvent the doing of this injustice by the University of New York, and prove ourselves as a people veritable ingrates.

The records prove that Morton used ether as an anaesthetic first on September 30, 1846, and then only after the suggestion made by Dr. Charles T. Jackson, of Boston, a friend and an eminent chemist and scientist, and more than four years after Long had employed this wonderful discovery in no less than four cases.

Dr. Jackson, in an article published in the *Boston Medical and Surgical Journal*, as a matter of record, admits the priority of Dr. Long's discovery of ether anaesthesia, stating that Dr. Long's fee for excising a tumor from the neck of James M. Venable, the first ether anaesthesia operation on record, March 30, 1842, was \$2.25, and for a subsequent operation on June 6, the same year, the fee was \$2.00.

Dr. Long was modest and retiring, and the records prove that he was too honorable

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



to wish pecuniary reward for his discovery, and refused to enter into a public controversy, preferring to let the justice of his claim be judged by an unbiased posterity.

But what of Morton? In violation of all professional ethics, he sought to veil his knowledge by discoloring ether and exploiting it under a patented name "Letheon."

He applied to Congress for a bonus of \$200,000 for the use of his preparation in the American Army and Navy. All of which brought upon him the united contempt of the entire medical profession and caused the American Medical Association to denounce him in the resolution introduced by Dr. Noyes of New York (see Transactions American Medical Association, Vol. 15, page 53):

#### **Resolutions Passed.**

"Whereas, In the appropriation bill now pending in Congress is a claim donating to Dr. W. T. G. Morton, of Boston, the sum of \$200,000 as a recognition of his services in introducing sulphuric ether as an anaesthetic agent, and

"Whereas, The said Dr. Morton, by suits brought against charitable medical institutions for an infringement of an alleged patent covering all anaesthetic agents, not claiming sulphuric ether only, but the state of anaesthesia, however produced, as his invention, has by this act put himself beyond the pale of an honorable profession and of true laborers in the cause of science and humanity; therefore,

"Resolved, That the American Medical Association enter their protests against any appropriation to Dr. Morton on the ground of his unworthy conduct; also because of his unwarrantable assumption of a patent right in anaesthesia, and further because private beneficence in Boston, New York and Philadelphia and other places has already sufficiently rewarded him for any claim which he may justly urge."

The venerable Dr. W. W. Keen of Philadelphia, that distinguished surgeon, and professor emeritus of surgery at Jefferson Medical College, in writing the introduction to the first issue of *The Surgical Clinics of North America* in February of this year, says: "My own rule in every paper I write

is first to be sure that my facts are right, my reasoning logical, my conclusions valid. If possible, I like to lay my paper aside for a month or more, and then revise it anew."

Yet Dr. Keen, on February 12, 1921, in a paper on "Vivisection," published in the *Country Gentleman*, says: "Prior to September 30, 1846, anaesthesia was impossible, for no effective anaesthesia was known," but as late as March 26 of this year, in the *Journal of the American Medical Association*, he denies Morton's claim and corrects the date given in the *Country Gentleman*, which was inserted by the publisher as having been taken from the *Encyclopedia Britannica*, to that of October 16, 1846, when Dr. John C. Warren dissected out a tumor from the neck of Gilbert Abbott under the ether anaesthetic at the Massachusetts General Hospital. Dr. Keen quotes from the address of Prof. William H. Welch of Johns Hopkins University, delivered at the Massachusetts General Hospital in 1908: "But, whatever may be the difference of opinion, one fact of the first historical importance stands and will continue to stand unshaken; the world received the gift of surgical anaesthesia as the immediate and direct result of the convincing, public demonstration of its efficiency in this hospital on the sixteenth day of October, 1846."

And yet Dr. Keen in his correction adds:

"It is perfectly true that Dr. Crawford W. Long, in Jefferson, Ga., in March, 1842,—more than four years before the Morton-Warren operation—did remove a small tumor from a patient under influence of ether. About eight minor surgical operations on patients under ether were performed by him after that date, but, to quote Dr. Welch again, 'We cannot assign to him (Long) any influence upon the historical development of our knowledge of surgical anaesthesia, or any share in the introduction to the world at large of the blessings of this matchless discovery.'

"Long made no claim whatever that he was the first to administer ether, nor did he publish a word about it until three years after that first public administration in the Massachusetts General Hospital. In other words, he



lacked the alert mind which would instantly have perceived the immense importance of the great discovery which he had stumbled upon."

Now, Dr. Keen, your reference to Dr. Long is not only not gracious, but your reflection is not borne out by the record, therefore your "facts" are not right, your reasoning is therefore not logical, hence your conclusions cannot be valid, and we are inclined to the belief that you did not lay your paper aside for a month's seasoning, else you, an esteemed and courteous gentleman, would not have allowed such an unjust and discourteous reference to such an eminent benefactor to have emanated from your pen.

Of Crawford W. Long, it is written of all his living, he possessed exceptional qualities of mind and soul, he scorned boastfulness, pretention or any manner of deceit, was very dignified in manner, reserved, sensitive, refined, free from envy, malice and jealousy, his whole appearance betokened the gentleman. When we recall that Crawford W. Long was a descendent from worthy ancestors, his grand-father, Dr. Samuel Long of Pennsylvania, being one of LaFayette's captains at Yorktown, making a brilliant record in the Revolutionary War, and his father, James, having been given every educational advantage, provided the same for his son, that Crawford when only nineteen years of age was graduated from "Franklin College," now the University of Georgia, with second honor; that he was graduated with distinction from the University of Pennsylvania in 1839, where he was recognized as a man of marked ability and fond of experimental work; that following this he spent one year in a New York hospital where he made such a reputation for himself as a surgeon that he was urged to apply for a position in the U. S. Navy; that he was a close student, fond of the world's best literature, thoughtful, modest and retiring, is it incredible that this man was fitted to make this great discovery, and having witnessed the painful suffering caused by operations, observing that individuals while under the influence of anaesthesia at "ether parties," which were popular at that time, suffered va-

rious injuries from which they felt no pain, and of which they were not conscious, that he should at once remark that: "Ether must have the power of rendering one insensible to pain, and therefore available for preventing pain in surgical operations?"

This opinion it has been definitely established he confided to Venable, who had repeatedly refused operation because of fear of pain, and his plans for the removing the tumor, thus persuading him to allow the operation. He committed his professional reputation and fortune to an assertion, and proved that one point. It was a coincidence, too, that the first operation of Long and that of Warren was for the same condition, dissecting a tumor from the neck of their patients.

You had just as well deny to Columbus the fame and distinction of having discovered America, because he did not exploit it, or to Madame Curie the just distinction of being the discoverer of radium because it was left to others to develop its wonderful usefulness, as to deny to Crawford W. Long the glory of being a benefactor to mankind by discovering that which would eliminate pain in surgical operations because, forsooth, admitting that he had successfully demonstrated his discovery repeatedly, he did not travel from Boston to New York and proclaim it from the housetop.

At a time when "mesmerism" was popular and being used in surgical operations, and he being a young physician, having practiced only one year, and being far removed from any railroad, and having comparatively few opportunities of experimenting with his discovery, no hospital being available, it was natural that he should be satisfied for the time being with local and state publicity which was given to his great discovery, and waited until he could make a comprehensive report embracing all kinds of cases, such as every investigator does today. This course was cautious and commendable, and but adds luster to his glory.

It is rather difficult to say who is great and who is not—perhaps only God knows; but the most practical measures of greatness are what one does, the spirit in which one does it, and its usefulness to the world.

Gauged by these standards, Crawford W. Long is truly great.

His great deed was the discovery of ether anaesthesia in surgical operations. His spirit was altogether worthy of his accomplishment. He sought not honors, nor gifts, but only to be a benefactor to humanity.

No, Dr. Keen, Crawford W. Long was the original discoverer of ether anaesthesia. Give to him that distinction and glory which are justly his, and in so doing you will but add to your lustre, and,

"As one lamp lights another  
Nor grows less dim,  
So nobleness enkindleth nobleness."

It has been brought to light recently and can be proven that in 1846, prior to the announcement of Morton and Warren, that an oculist, Dr. Bentley, and a dentist whose name is forgotten, came to Jefferson from Boston and spent a week.

Because Dr. Long had no proof he never mentioned the visit of these men, but his daughter states that he always wondered if they carried information concerning his discovery back to Boston. If this is true the friends of Morton, admitting Long's priority, must yield even their contention that Morton discovered anaesthesia independently of Long, and it is just as logical to credit to Howard Kelly the discovery of radium because he has successfully used it, as to acclaim Warren, because he used successfully and advertised the discovery of another.

In 1879, a heroic size oil painting of Crawford W. Long was presented to the State of Georgia by Henry L. Stewart, a great philanthropist and founder of Woman's Hospital in New York.

In 1912, his Alma Mater, the University of Pennsylvania, unveiled a medallion to honor his memory as the true, original discoverer of anaesthesia.

In 1910 Dr. L. G. Hardman erected to him in Jefferson a marble shaft on the very spot where stood the tree under which the first ether anaesthetic was ever administered.

In June of this year a medallion is to be unveiled in Athens at the commencement exercises of the University of Georgia, the

gift of Dr. Joseph Jacobs, to whom the medical profession and the citizenry of the State are indebted for many of the most important facts substantiating the claim of Crawford W. Long, and we give to him a vote of gratitude for his successful efforts in establishing the truth.

Dr. Long's claim has been recognized by the New Orleans Medical Association, the National Eclectic Association, the Medical Association of Georgia and the Southern Medical Association.

A memorial hospital bearing his name is in operation on the campus of the University of Georgia and a memorial hospital bed in France has been endowed to his memory.

Official tribute has been paid Dr. Long by the Republic of France, his portrait hangs in the Anaesthetist's Hall of the Royal Society of Medicine, London, and his claim has been substantiated by the British Medical Conference. A county in our own State bears his name. Yet, with all this, Empire State of the South, "one thing thou lackest" to make his fame secure.

When the resolution creating the National Statuary Hall in the Capitol at Washington was under consideration in 1864, Mr. Morrill of Vermont, the author of the resolution, said: "Will not all of the States with generous emulation proudly respond, and thus furnish evidence that the Union will clasp and hold forever all its jewels, the glories of the past, civil, military and judicial, in one hallowed spot where those who will be here to aid in carrying on the government may daily receive fresh inspirations and new incentives—

"To scorn delights and live laborious days, and where pilgrims from all parts of the Union, as well as from foreign lands, may come and behold a gallery filled with such American manhood as succeeding generations will delight to honor, and see the actual form and mold of those who have inerasably fixed their names on the pages of history?"

On July 1, 1902, a commission created by the Legislature of Georgia and appointed by Governor Allen D. Candler, selected the names of Crawford W. Long and Alexander H. Stephens, whose statues should be placed in this Hall, representing Georgia's two most



distinguished sons. And yet, after nineteen sessions of the Legislature have been held, and with the exception of seventeen, every State in the Union has availed itself of this privilege, Georgia is conspicuous by being numbered among the delinquents. Surely our own beloved commonwealth is not ungrateful to its distinguished sons, nor unmindful of its obligations.

For the sum of \$10,000 appropriate monuments may be erected to each of these distinguished sons. Can you conceive of an object to which such a sum could be devoted with purer or more exalted motives, or one more likely to be greeted by the patriotic and appreciative heart of the State?

The intrinsic value of these monuments will be as real as the sun that shines, the flowers that grow, as a mother's love, and the inspiration which will come to the young manhood of the State and Nation cannot be measured in pecuniary value.

Go with me into the Library of Congress at the National Capitol, or that one on Copley Square in Boston, or that one on Fifth Avenue and Forty-second Street in the Metropolis of America. I dare say we will find there two freight cars full of biography, commenting on the good and great people of the ages, but the greatest biography ever written was expressed in just five words:

"He went about doing good."

This, Mr. Chairmen and brethren of the Medical Association of Georgia, is typified in the lives and character of Crawford W. Long and Alexander H. Stephens.

And we contemplate them, and catching inspiration from their lives, who lived "non Sibi, sed aliis."

"May we live for those who love us,

For those who know us true,

For the Heaven that smiles above us,

And waits our spirits, too,

For the cause that lacks assistance,

For the wrong that need resistance,

For the future in the distance,

And the good that we can do."

Members of the Medical Association and Citizens of the Commonwealth of Georgia, let us teach our children the truth concerning the greatness of Georgia's sons, and let

us by our active interest and influence make the day be not far distant when our own state shall vindicate itself before the nation and answer those who would rob us of our just claim by paying this obligation and just tribute to the memory of her distinguished sons.

#### Discussion on the Paper of Dr. Garnett W. Quillian.

DR. FRANK K. BOLAND, Atlanta: We are under great obligation to Dr. Quillian for the work he has done in pushing the claim of Crawford W. Long as the discoverer of anesthesia. It seems to me, the claim is clearly established that Long was the discoverer of anesthesia. Dr. Quillian is likewise entitled to our thanks and gratitude for his efforts in inducing our state legislature to put this monument in Washington where it ought to be. It is up to every member of the Association to ask the different legislators to see to it that money is obtained to carry out this project. We have delayed this matter too long. Other states and other countries have honored their heroes more promptly than Georgia has done.

I am glad Dr. Quillian touched on the letter of Dr. Keen, which was published in the Journal of the American Medical Association a few weeks ago. I think Dr. Keen is in error when he states that Dr. Long had stumbled on this discovery. A great many discoveries are accident, but this discovery was not entirely accidental. Dr. Long, when serving an internship in a New York hospital noticed the suffering of women in connection with childbirth operations, and years later he strove to find some means of alleviating these pains. He did not stumble upon the discovery as Dr. Keen states, and it was not accidental at all. The insistence upon Dr. Long's claim is not a sectional matter. We find men in all sections of the country who believe that Long should be given credit for this discovery. We are not the only ones who believe he is entitled to this great honor, but men in England and other countries are willing to admit that he was the discoverer of anesthesia.

DR. JESSE C. BENNETT, Jefferson: I want to add a few words of appreciation of Dr. Quillian's efforts in presenting the claim of Dr. Long's claim of priority in discovering ether anesthesia. It was my good fortune to be born within four miles of where this great discovery was made. My shingle is within seventy-five or one hundred feet of where this discovery was made, and I would be ungrateful did I not at this time express a few words of appreciation with regard to this great discovery of Dr. Long.

It was the pleasure of this Association, when it held its meeting in 1910 at Athens, to dedicate and unveil a monument on the public square in the city of Jefferson to Dr. Long, at which time an excellent



address was made by that distinguished writer and physician, Woods Hutchinson, of New York, and Hon. P. A. Stovall of Savannah, later Ambassador to Switzerland, and we appreciate until this day the great honor that came to us by the visit of this Association at that time. This monument was the beneficent gift of Dr. L. G. Hardman, of Commerce, and it was unveiled by this Association, as I have already stated, in 1910. It was our great pleasure to have you as our guests at the time.

We believe that all fair-minded men in all sections of our country have no doubt as to the discoverer of ether anesthesia, and we certainly hope and trust that the legislature of Georgia will appropriate a sufficient sum to put in the Hall of Fame at Washington, D. C., a statue to Dr. Crawford W. Long.

Dr. CHARLES E. DOWMAN, Atlanta: I would like verily much for the Councillors of the Medical Association of Georgia to consider the suggestion that we as an association honor the name of Crawford W. Long in another way. In addition to that which has been suggested, namely, that there be created a Crawford W. Long address to be delivered each year at the Association meeting. This is the custom that has been adopted by a great many associations to honor some particular man in the state who has accomplished something that is worth while. For example, in the state of Alabama there is an annual address at each meeting of that association called the Jerome Cochran address. Jerome Cochran being the physician who instituted and carried through the health laws that are now in force in that state. Some prominent physician in the United States is invited each year to deliver the Jerome Cochran address. This address is not necessarily on the life of Jerome Cochran but some scientific subject may be selected by the essayist. The address in this particular association is always listened to by a large audience and greatly enjoyed.

Personally, I would like to make the suggestion that the Councillors of our Association consider the question of creating a Crawford W. Long address at the meetings of the Association, and that each year some distinguished physician be invited to deliver it.

Dr. GARNETT W. QUILLIAN, Atlanta (closing): With reference to the suggestion made by Dr. Dowman, the Committee on the Crawford W. Long Memorial will make such suggestions, and the House of Delegates will be called upon to pass on them before the meeting adjourns.

Dr. R. C. WOODARD, Adel: We all appreciate the spirit that prompted Dr. Quillian to give this paper. We all concede to Dr. Long the priority of this discovery. This is a matter very close to Dr. Quillian's heart as Chairman of the Committee on the Crawford W. Long Monument. He worked incessantly last summer for the passage of a bill giv-

ing us an appropriation, and as he remembers it was not due to the fact that the legislators did not favor the proposition, but they held it was unconstitutional and there was no way to do it. Mr. Strozier made a strong argument in favor of the measure, and if all the members of our legislature were like him and would join him in his efforts, it would not be long before they would give Dr. Long the honor he is entitled to at the hands of the people of Georgia.

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### SIR WILLIAM OSLER.

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S. Stampa, M.D.,  
Atlanta, Ga.

In the passing of Sir William Osler, the medical profession lost one of the greatest physicians in modern medical history. He was a brilliant lecturer, a tactful teacher, an earnest student, and an author of great renown in medical science and literature, in this country and abroad.

No physician occupies a higher place in the affections and esteem of the English speaking medical profession than Sir William Osler. His name, whenever mentioned, at once arouses admiration and respect, and will continue to do so in the future.

To attempt to describe his matchless power, his intellectual and moral force in detail, is a greater task than I would care to undertake, knowing that I could not do justice to the occasion, and were I able to do so, the time does not permit it, but in the interest of those present here tonight, I shall endeavor to point out a few of the landmarks along the journey traveled by this beloved and admired physician on his way to fame and honor.

Born in Bondhead, Ontario, he was educated at Trinity University and the Medical School of McGill University, Montreal, from where he was graduated in 1872. To complete his education he went to London University College and to Berlin and Vienna. In 1874 he returned to Montreal and was appointed professor of Physiology and Pathology at McGill University, which chair he retained until 1884. He was then elected professor of clinical medicine at the University of Pennsylvania, and held that position until 1889. He then went to Baltimore as professor of Principles and Practice of Med-

icine at Johns Hopkins University and chief physician at Johns Hopkins Hospital. In 1895 he went to England to assume the chair of regius professor of medicine at Oxford University and lecturer at St. George's Hospital, London, where he resided afterwards. In 1911 he was created Baronet by King George of England. In 1914-15 he took active part in helping to organize and equip the British military hospitals in the late European war.

Osler's works touched nearly every field of medicine. He was one of the first to describe blood platelets. He wrote on cerebral palsies, on chorea, on cancer of the stomach, on diseases of the liver and spleen, etc. Much of his time he devoted to writing, not only on technical medical subjects, but also in the fields of medical history, biography and the philosophical essay. He published *Histology Notes*, *Cerebral Palsies of Children*, *Principles and Practice of Medicine*, *Science and Immortality*, *Counsels and Ideals*, *An Alabama Student*, *A Way of Life*. He also edited *A System of Medicine* from 1910 to 1914.

As a student he never followed any previously outlined course, and did not care for mere book work or examinations, but instead worked independently in the hospital, especially in the post-mortem room. His graduation thesis on topics of pathologic anatomy was awarded a special prize, because it was distinguished for its originality and research.

At the age of 25 he began to teach pathology in Montreal, and before long he was teaching medicine in the wards also, and became so absorbed in teaching and clinical observations and medical society work that he had very little time left for private practice, or for cultivating opportunities to earn money.

Many papers of importance he published in those days. Some of the more noteworthy were on *Prodromal Rashes*, on *Small Pox*, on *Blood Platelets*, and on *Infectious Endocarditis*.

As a successful medical teacher he no doubt ranks as one of the greatest. Respected and beloved by all the students and

assistants, he aroused in them enthusiasm and stimulated them to do independent work. They looked upon him not only as a great teacher, but through his interest and kindness toward them, as a friend also. It was customary for him to invite his pupils every week end to his house, where he entertained them and discussed with them medical topics of the day. He was the high priest of lofty ideals, harmony and friendly co-operation, and many a fumbling beginner has been gladdened unexpectedly by his generous advice and encouragement.

In 1884, when he became professor of clinical medicine at the University of Pennsylvania, his colleagues were astonished because he refused all temptations to private practice in the usual sense of the word, but instead remained teacher and consultant, so that he might have the desired time and leisure to pursue his studies. He was always glad to share his observations and opinions with others, especially with the younger physicians..

Osler's addresses and essays possess high literary merit in medical scripture. Always cheery and inspired by lofty ideals, and with his kindly spirit, he stimulated interest in American medical history, and we owe to him vivid sketches of the life and works of the early leaders in medicine in this country, namely: Nathan Smith, Bartlett, Jackson, Bigelow, Alonzo, Clark, Gerhardt and others with whom it was his ambition to be ranked. As he once expressed himself, "The chief desire of my life has been to become a clinician of the same stamp with those great men whose names we all revere, and who did so much good work for clinical medicine."

He was one of the first to recognize the then crying need and importance of bedside work and clinical observations for medical students and young physicians, and it was his ambition to build up a great medical clinic. Hence when he was elected head of the medical department of Johns Hopkins, his ambition was realized. He at once organized a model medical clinic: one of the best, of the first, and for a long time the only one of its kind in the country. Here the medical students were taken into the wards as



units in the working force of the hospital, and by this system he encouraged the younger physicians to do independent work and higher research.

His winning personality, his cheerful and kindly disposition, his love for humanity, and above all, his great love for the Medical Profession, made him the esteemed and beloved Osler that he was. From his boyhood to his last illness, he was a student and a tireless worker. His contributions to medical literature include 30 titles marked by elegance of style, high literary merit, and masterly English diction. All the honors the Medical Profession has bestowed on him during his long and useful career, he justly deserved.

In order to obtain a glimpse of his character and personality, I will repeat the words of Osler at the International Celebration in honor of his 70th birthday. On that occasion, in response to a presentation address, he said, "To have had the benediction of friendship follow one like a shadow, to have always had the sense of comradeship in work, without the petty pin-pricks of jealousies and controversies, to be able to rehearse in the sessions of sweet, silent thought without a single bitter memory, fills the heart with gratitude. That three transplantations have been borne successfully, is a witness to the brotherly care with which you have tended me. Loving our Profession and believing ardently in its future, I have been content to live in it and for it. A moving ambition to become a good teacher and sound clinician was fostered by opportunities of an exceptional character, and any success I may have attained, must be attributed in large part to the unceasing kindness of colleagues, and to a long series of pupils whose success in life is my special pride."

On another occasion, at a farewell dinner to him, he said, "I have had three personal ideals: one, to do the day's work well, and not to bother about tomorrow. You may say that this is not a satisfactory ideal. It is, and there is not one which the student can carry with him into practice with greater effect. To it, more than to anything else, I owe whatever success I may have had; to this power of sitting down to do the day's work, and

to do it to the best of my ability, and letting the future take care of itself. My second ideal has been to act the golden rule, so far as in me lay, toward my professional brethren and toward the patient committed to my care. My third ideal has been to cultivate such a measure of equanimity as would enable me to bear success with humility, the affection of my friends without pride, and to be ready, when the day of sorrow and grief comes, to meet it with courage befitting a man."

Osler is dead, but his teaching and ideals will always live in Medical History and Literature, and in generations to come he will be thought of as a great physician who has benefitted humanity.

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#### THE PRESERVATION OF HEALTH.\*

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Cyrus W. Strickler, M. D., Atlanta, Ga.

Medicine in the last few years has continued to keep pace with all the great sciences and today we know more about the cause, cure, and prevention of disease than seemed possible a decade ago.

This knowledge has been greatly increased by our experiences in the great war.

I believe it is true that there are now more enthusiastic workers in the profession than ever before in its history, as evidenced by the greater effort to advance the science and art of medicine.

Medical education is placed on a higher plane and there is still greater effort being put forth to raise the standard by requiring all graduates to serve a year, at least, as internes in some class A hospital.

Hospitals are being standardized, outdoor clinics greatly improved and over the whole country group clinics are being formed for the better study, diagnosis and cure of disease.

A greater number of our most brilliant men are now giving their whole time to research in the various departments of medicine.

However brilliant may have been our achievements in the past or are those of the present, there are still great problems to engage our

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\*Read before the Medical Association of Georgia, Rome, Ga., May 4, 5 and 6, 1921.



study, energy, and time, one of the most important of which is Preventive Medicine.

It is quite true that in certain localities and with certain diseases much progress has already been made. This has been largely in connection with contagious diseases, and therefore, covers but a small part of this great subject.

It is an achievement to be able to correctly diagnose disease, a victory to be able to control and cure it, but a far more wonderful thing than either of these, to prevent it, thereby lessening the amount of suffering, sorrow and economic loss.

The best method of accomplishing this vast undertaking, in the broader sense, would require much thoughtful study and be the subject of much discussion. However, whatever plan or plans may finally be adopted, the basis would be, I am sure, a proper education, first, of the medical profession and second, of our people.

For those of us who are already in the field of medicine, if we have not previously done so, it is necessary that we now fully inform ourselves in regard to preventive medicine, sanitation and hygiene. The physician of the future, as Goldwater points out, must have a more thorough education in these subjects and our medical schools must see to it that such training is given; otherwise the young physicians will begin their medical careers untrained in the medicine of the future, and as a result, will be unable to cope with the problems presented by those agencies which constantly imperil the health and lives of our people.

The laity must be educated along similar lines, otherwise, our efforts will bear little fruit. That this is true, is proven by results already obtained in handling such diseases as diphtheria, scarlet fever, smallpox, yellow fever and others.

Further proof of the value of education is shown by the information possessed along these lines by the soldiers who served in the ranks of our Army and Navy. The knowledge of these subjects reflects great credit upon those who had charge of their instruction.

The State Board of Health with its meagre means and limited personnel has accomplished much along certain lines, the good results of

which are already apparent. What could they not do if given sufficient money and a personnel adequate to perform the duties required. Is it the duty of the State to give this Board that which is necessary to cope with the educational problems that now confront them? If this were done it would be true economy. The loss to the State by disease and death is far greater than the amount required to enable the Board to do efficient work and, therefore, would be a paying investment, a great benefit to those now living and an educational inheritance to those as yet unborn.

Is it not time for this Association to take a more active interest along educational lines by co-operation with the Board of Health in all its endeavors and, independently placing in the hands of the people the literature that meets their needs, supply the essential facts they require in their struggle for existence? Until this is done, ignorance and prejudice will continue to exist and disease will be the result.

The people, as yet, have no clear conception of the part they must play in the battle against disease and death. They lack this information because they have never had proper instruction.

Every one knows something about tuberculosis, but how few are trained in preventive measures, or how to care for themselves and protect others when the disease has been contracted. Every one has a great fear of this malady. What a comfort it would be to them to know that when early diagnosed, it is one of the most curable of all diseases and, by correct living, that one can remain well. The great number of new cases reported each year impresses one with this lack of education on the part of the people, and the large number of deaths shows negligence in its management, either on the part of the profession, the people or both. The great State of Georgia has a sanatorium with a capacity so small that it can each year accommodate only a few of the vast number afflicted with this, so-called, "White Plague."

If the mothers of this State were fully informed in regard to the care of the eyes of the new-born and the importance of this was impressed more fully upon the members of our profession, I am quite sure that the number of cases of blindness resulting from ophthalmia neonatorum would gradually diminish until it

would become almost unknown in the practice of medicine. Certainly, few cases would result from negligence.

If the people, generally, knew the real danger of simple wounds, particularly punctured wounds, is it not reasonable to suppose that they would take advantage of the agent preventing tetanus, and of their own volition, request a prophylactic dose of anti-tetanic serum, the great benefit from which was fully demonstrated by the experience of our medical officers in France?

Typhoid fever has been practically eliminated from the armies and navies of the world. This disease was almost a curiosity in our hospitals during the recent war. The lesson learned in regard to it by our boys, should and doubtless will be of benefit not only to them but to their children.

The laity, as a result of education, no longer wait to be advised to take antityphoid vaccine, but come and request its administration. The decrease of this disease, especially in our larger centers is noteworthy and can be explained in no other way than that the layman has learned much about its etiology, epidemiology and prevention.

Nearly every one is supposed to be informed in regard to the value of anti-diphtheria serum, both as a preventive and curative agent, and yet there are quite a few prejudiced against its use because of the unfounded reports circulated by the uninformed.

If our boys and girls were better instructed in regard to the great social evil, if satisfactory laws were enacted to control it, and these laws were properly enforced, I am quite sure that the suffering and sorrow that now exist would soon be only an unpleasant memory.

If the people were taught in a practical way the cause and prevention of such chronic diseases as Bright's disease, arterio sclerosis, infectious arthritis and others which might be mentioned, it is quite certain that a number, at least, would take advantage of this knowledge to delay as long as possible the changes that result in this pathology.

It is of the greatest importance at this time to impress upon every one the value of right living. It has been stated that "Right living is an art." It is necessary that every

one should be taught how to work; how and what kinds of food to eat; that recreation is a necessity and a proper amount of sleep cannot be dispensed with. If this were accomplished, many of the above mentioned diseases would be much less frequent and the great number of cases of fatigue and neurasthenia which come to consult us, would be conspicuous by their absence.

Another of the greatest evils of the day is the use of patent medicines. Not because of any harm in the medicines themselves, for, while not helpful, few, if any, of them are really dangerous. The actual harm comes from procrastination, in delaying to seek scientific advice until some disease, curable in its incipiency, advances so far that the ingenuity and learning of our ablest clinicians are alike helpless and can render no assistance other than to make such patients comfortable while they live and, as Kipling says: "Make the best bargain with death that is possible."

There are some diseases incurable from the beginning, for example, diabetes mellitus, yet under the direction of a wise and competent physician, its progress can long be delayed and the individual thus suffering can be made to live comfortably, his life be useful and comparatively long.

Our attention should be especially directed to cancer, the etiology of which we are still in ignorance. It has baffled the investigative genius of our ablest workers and taxed the ingenuity of our best surgeons to ferret out its ramifications and eradicate its deadly grasp. Such a state of affairs will continue, possibly grow, until physicians pay closer attention to those factors which invite and excite its progress. All women should be taught the value and absolute necessity of post partum examination. Should they fail to come voluntarily, we should summon them, otherwise will we be neglectful of our duty and abuse the confidence placed in us, that confidence which should always inspire and stimulate us to put forth our best effort.

The little, innocent looking, black mole, which frequently adorns our persons, and when placed in certain localities has been considered a mark of beauty, if neglected



and through false security, not removed may eventually become the most malignant of cancers.

The little tumor which so frequently appears, unexplained, particularly in the breasts of women, is in most instances a danger signal of impending disaster and with very few exceptions should be early removed. I warn every one against procrastination and "watchful waiting."

It is of the greatest importance for us to understand that there are only a very few drugs which possess curative power, that it is our own natural defenses against disease plus the wise direction of capable clinicians which effect a cure or stay the progress of the various maladies to which human flesh is heir.

Therefore, let all who are tempted to put their trust in the advertised claims of the wonderful cures wrought by the vast number of patent medicines now on the market, take warning and, no longer following this will-o'-the-wisp, cease to replenish the coffers of those who prey on the faith of humanity, whose service to man is far out-balanced by the harm they have done.

In this connection I might call attention to certain other gentry who proclaim their ability to cure diseases by massage, manipulation, etc., who for a number of years have taken advantage of our credulity, but who in this length of time have produced nothing upon which they can base any claims toward progress. They can present no statistics to prove the curative power of their methods nor show any evidence of any real knowledge of the conditions which they attempt to treat. We could only prescribe for such, a most liberal medical education.

It is the duty of the legislative bodies who enact our laws to secure the same degree of information in regard to medical matters as that required for the other problems that confront them. They should know what is required to earn the degree of M. D.

They should listen with more tolerance and more often heed the advice given by the medical profession—men who by their work and manner of life, have established, indisputably, a reputation for honesty, un-

selfishness and skill in dealing with disease. I make this statement with pardonable pride.

It is also their duty to more carefully consider the claims made by certain individuals who call themselves doctors. Doctors of what? Certainly not of medicine, for they have never been trained in the medical sciences neither have they the faintest conception of what this entails. Lacking this education as well as both clinical training and experience, and, by their own admission, certain information considered absolutely essential by the medical profession, how can they lay any just claim to sufficient ability to successfully deal with disease? Yet, they are licensed to practice in their chosen field! Having gained this foothold, they seldom are satisfied. Beginning to branch out, we soon find them attempting to handle conditions of which they are ignorant, and, in many instances, doing grave harm to those who have put their trust in what we may speak of as a "medical quicksand."

To practice safely and successfully any branch of medicine, it is necessary not only to possess a broad conception of the whole subject but also an accurate knowledge of every branch and interrelationship of each.

The best method for the correction of error is not criticism, nor jests nor silent contempt. We are all born with minds capable of being trained to think and reason and it is only by the proper use of these faculties that we can reach a sense of true values and appreciate the difference between "quackery" and scientific medicine.

May the profession of the present and the immediate future take more time and trouble to explain preventive medicine to their clientele and teach them its true value! May the people receive this instruction in the spirit in which it is given, remembering that the true physician never gives adverse criticism except when duty demands. That there is no ulterior motive is proven by the fact that since the earliest days of medicine, the profession has made every effort to prevent disease. Had they been successful, those of us now serving you would, of necessity, have been engaged in some other avocation, there being so small a demand for doctors.

Is it not, therefore, evident that the



physician must have the broadest and highest type of education, that the people must have sufficient information to intelligently co-operate with the profession, and the legislative bodies must seek that data which will enable them to enact such laws as will protect both the physician and the people? With this great triumvirate will begin a new era which will prove a blessing to mankind.

53 Forrest Ave.

#### Discussion on the Paper of Dr. Strickler.

DR. T. F. ABERCROMBIE, Atlanta: I wish to thank Dr. Strickler personally for the paper he has presented. Public health has not yet developed and reached that degree of perfection in the State of Georgia that it should. I would like this paper to reach every physician in the state before the next legislature meets, at which time our appropriation will be up for consideration.

DR. R. C. WOODARD, Adel: Dr. Abercrombie has made a statement which I want to emphasize. I should like the members of the General Assembly to have a copy of this paper. The members of the Georgia Legislature are just folks, and if you go to them with an appeal and give them inside information as to what the medical profession wants, those gentlemen can be reached.

I was thinking whether the doctor could rewrite this paper and present it in a more simplified form, stripped of technical language, so that the average layman may understand it and let him know what we mean and thus appeal to the members of the Georgia legislature in that way. I believe if that were done, we could get something in the way of appropriations for our public health movement. I am very glad indeed Dr. Abercrombie mentioned this.

I appreciate the paper very much. It is one of the best I have ever heard read before the Medical Association of Georgia.

DR. L. C. ALLEN, Hoschton: I think this paper is very timely and valuable. We all know that from a conservative estimate over one-half of the sickness we have is preventable sickness, and more than one-half of the deaths are preventable deaths, and we know that all over this country there is a large percentage of our population who are physically and mentally inefficient from physical defects and diseases that could have been prevented if these individuals had had the proper medical supervision and training during their childhood. The medical profession possesses knowledge that is sufficient to prevent these preventable diseases, but the laity has not that knowledge.

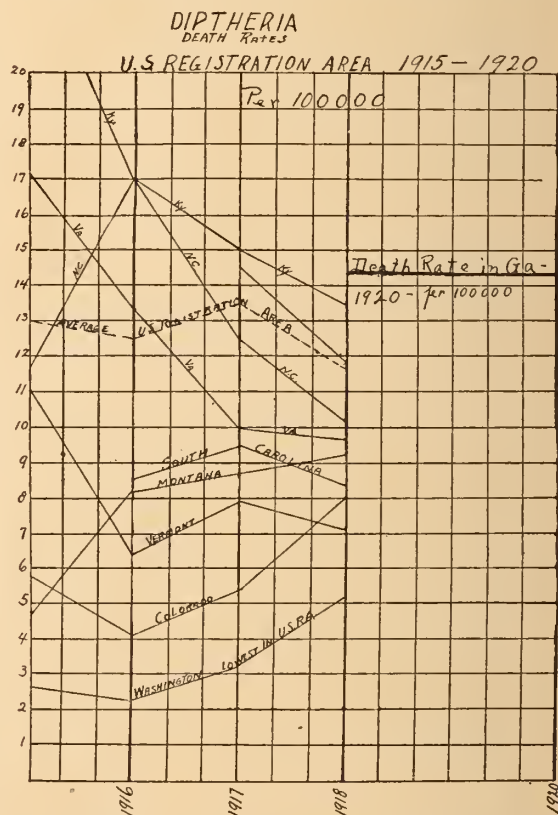
The word "doctor" originally meant teacher, and he should be a teacher. It is the duty of the

medical profession to carry this knowledge in some way to the public in order that this large amount of preventable sickness and preventable deaths, and preventable inefficiency may be avoided, and also to prevent, if possible, the enormous financial loss that results from such physical inefficiency and sickness.

#### FREE DIPHTHERIA ANTI-TOXIN\*

Thomas D. Walker, M. D., Macon, Ga.

The medical profession by continuous labor has changed the laws and nature of many diseases once thought immutable. Not being content with pointing the way to the cure of many diseases, the desire to help



goes on and the profession is asking that not only shall the way be pointed out, but that the actual remedy shall be given.

I refer particularly to diphtheria anti-toxin, which is now being given by many states to their constituents white and black, rich and poor alike.

Why is this being done? First, because it

\*Read before the Medical Association of Georgia, Rome, Ga., May 4, 5, 6, 1921.

saves lives. Second, because it saves money. Taking the registration area of the United States as a basis for calculation prior to the general use of diphtheria anti-toxin, the death rate in the United States in 1900 from diphtheria was 43 per 100,000 of population. In 1918 the death rate for the U. S. was approximately 18 per 100,000 of population, conclusively establishing the therapeutic value of diphtheria anti-toxin.

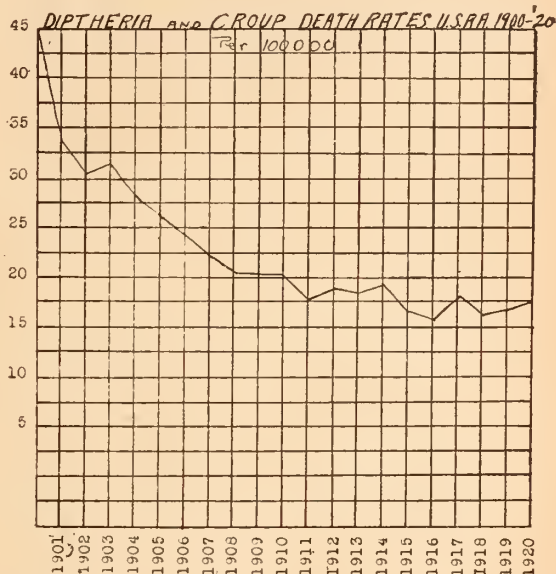
That is excellent; but that death rate is not as low as it should be or can be. If anti-toxin could be given in an unlimited amount, early in every case, and in every suspected case, at least within three days from onset, the mortality would be reduced much below what it is at the present time. I believe I would be safe in saying that the mortality from diphtheria would be no greater than the mortality from small pox at the present time.

I can best illustrate by citing what has been accomplished in South Carolina by the free distribution of anti-toxin. Quoting Dr. Haynes, State Health Officer, who says: "Our diphtheria mortality has been gradually reduced year by year, through the free and unlimited distribution of diphtheria anti-toxin until our average death rate for the past five years has been a fraction less than 5 per 100,000 of population. The mortality has varied from 3.5 per 100,000 of population in 1917, to 6.8 per 100,000 of population in 1920, when an epidemic lasted throughout the year. In five years we have had 8,044 cases with 492 deaths."

There are only four States in the Union that have a lower death rate from diphtheria than South Carolina. Those are Washington, Colorado, Montana and Vermont, and the low mortality in those states is thought to be due to the widely scattered population.

Georgia had last year 401 deaths from diphtheria, or 14.5 per 100,000 of population; nearly as many in one year, as South Carolina has had in five years. The deaths by months from January to December was as follows: 25-25-20-14-5-5-16-31-64-82-71 and 43. The smallest number of deaths being in May and June, namely 5—the greatest number occurring in October, 82.

What would be the economic advantage to Georgia to supply free diphtheria anti-toxin? The economic saving to the citizenship of Georgia through the free distribution of diph-



theria anti-toxin can only be approximated at this time. The maximum saving will only occur after the system is well established, and familiar to the people and physicians. We can estimate the saving though, as it has been worked out very accurately in other States. Consider South Carolina again. During the past six years South Carolina has distributed free 34,192 packages of diphtheria anti-toxin, of various sizes, at a total cost of \$56,428.00. The regular retail list price of this anti-toxin at the drug store, had the same been purchased by individuals, would have been \$136,768.00, thus producing a saving of \$80,340.00 to its citizens. The average cost per case of diphtheria anti-toxin is \$5.69. In this State the tax payer insures himself and his family against expenditures for diphtheria at the rate of 5 cents per \$1000 of property returned for taxation. Thus, the man who pays taxes on \$5000.00 pays 25 cents per year for diphtheria anti-toxin to protect his family—or free diphtheria anti-toxin costs approximately one cent per person per year. Georgia last year distributed 29,000,000 units at a cost of \$7000.00. That amount purchased from the drug store would have cost from \$21,750.00 to \$43,000.00, depending upon the size package



bought. There was a saving of from \$15,750.00 to \$36,500.00 by its being distributed free by the State. The State can supply anti-toxin at approximately one-third the cost to the individual through the regular course of trade. No data is obtainable on the total amount used in the State, but I doubt the above amount being even one-fourth of the total amount used.

The present system of distributing anti-toxin is all right as far as it goes, but it doesn't go far enough. The amount distributed is far too small; that is due to the small appropriation by the legislature.

Why should not the legislature increase the appropriation sufficiently to buy all the anti-toxin needed in the State which would, first, reduce the death rate from 14.5 per 100,000 of population to at least 3 to 5 per 100,000 of population. Secondly, it would save the state \$20,000.00 to \$100,000.00 annually, depending upon the frequency of epidemic.

There is no valid reason why Georgia should not supply her children with free diphtheria anti-toxin. Those who pay taxes are entitled to it, since it is bought with their money. Those who are poor, and cannot purchase anti-toxin should have it for no other reason than a selfish one, as the poor are just as efficient carriers of diphtheria as the rich, and perhaps contracted diphtheria from the richer class, who had sufficient influence to prevent the posting of the quarantine notice.

Diphtheria will ever be present whether the State supplies anti-toxin or not; but the free supply of this lifesaving serum will materially reduce the diphtheria mortality in Georgia, as it has in South Carolina and other States.

Dr. Haynes again says: "Probably no law was ever placed on our statute books that touched the hearts of the people as a whole, as did the law creating the appropriation for free diphtheria anti-toxin. Since the passage of this law over ten years ago, not a voice has been raised in our legislature to abolish or reduce the appropriations for free diphtheria anti-toxin, and it would be political suicide for any legislator to attack it. That is South Carolina's verdict after ten years of practical demonstration."

#### Discussion on the Paper of Dr. Thomas D. Walker.

DR. T. F. ABERCROMBIE, Atlanta: I want to say at the outset, as Secretary of the State Board of Health we are just as much in favor of the free distribution of antitoxin, or even more so than any one in this state.

We are held by two things, the first of which is an act on the statute books prescribing how we shall distribute antitoxin, and the next is a lack of appropriation.

In 1917, when I took charge of the State Board of Health, the total appropriation was \$30,000.00. To put antitoxin over the state, as we should do it, where everybody could get it as they do in South Carolina, it would cost the state about \$45,000.00, which is not much, if the state would provide us with the funds, as pointed out by Dr. Walker. I would be glad to see such a system worked out, and if the Medical Association of Georgia can help us to distribute it more freely than we do now, I shall certainly welcome any change.

Some one has asked me as to the best method of going about it. In going over our laws, I find that our health laws are out of date, and some of the legislators have already agreed to introduce a resolution at the coming session of the legislature to get a committee from both houses to recodify our laws and incorporate a real sanitary code for the State of Georgia, and if that can be accomplished and include this in it, we will go a long way toward doing what we want to do.

DR. W. A. MULHERIN, Augusta: Dr. Walker's paper touches on a very vital point. One that should receive the earnest and serious consideration of the members of the Medical Association of Georgia.

One of the prime objects of the Medical Association of Georgia, as I understand it, is to conserve and preserve human life; likewise to mould public opinion so that proper sanitary laws may be enacted in Georgia to look after human life. Now if it can be shown, as brought out by Dr. Walker in his paper, that we are losing in Georgia almost three times as many children from diphtheria as South Carolina loses, that we are far in excess of the average diphtheria mortality in the United States, then it appears to me that we have a serious responsibility ahead, and it is about time for us to wake up and assume this responsibility.

Statistics plainly show that the mortality in Georgia from diphtheria is 14.5 per 100,000 population, whereas in South Carolina it is barely 5 per 100,000 population. The reason for this difference in mortality is plainly due to the fact that South Carolina has free diphtheria antitoxin for rich, poor, white and black alike, while Georgia dispenses very imperfectly only to the indigent poor. The excuse that the Georgia Legislature will not appropriate a sufficient amount of money to give Georgia free diphtheria antitoxin, like South Carolina, is



not well founded. To me it appears that the first responsibility in the matter rests with the Medical Association of Georgia. It is our responsibility to call the attention of the Georgia Legislature, in no uncertain terms, to the fact that Georgia is losing almost three times as many children from diphtheria as South Carolina. That this unnecessary waste of life can be prevented by their co-operative action. They should likewise be reminded that the proposition is not a fantastical or experimental one, for South Carolina has had this law in operation for the past ten years, and there has been no law that has touched the hearts of the people as a whole as the one that permits free distribution of diphtheria antitoxin. They should be further told that this law has proved so popular that there has never been one legislator who has ever raised his voice in protest against it, or even suggested that there be a decrease in the amount appropriated by the State for this purpose.

I have been told that it would be political suicide for any legislator to attack this law. Again, the Georgia Legislature should be reminded that our requests for free distribution of diphtheria antitoxin for Georgia for rich, poor, white and black alike is a reasonable one. To substantiate the fact we need only to remind them that of the total state fund we are receiving for health not quite 1 per cent, while for school education they are expending 51.7. This unfair expenditure of our state's money should be stressed, and a demand made for a much fairer distribution of same, with due consideration given all health matters of our State.

From a practical and financial standpoint it can be shown that when the state will dispense free diphtheria antitoxin there will be a saving to the citizens of our state of approximately thirty to forty thousand dollars a year. This is explained by the fact that the state can buy antitoxin at about one-third the cost that a citizen can purchase same.

Finally, it appears self-evident to me that the responsibility of securing for Georgia free diphtheria antitoxin belongs to the Medical Association of Georgia. As an association, we should endeavor in every way possible to stop this useless waste of children's lives. We know the remedy and likewise the sure results that will follow. Therefore it is up to us to get this movement started and have same brought up for consideration before the House of Delegates. I feel quite sure that when proper action is taken upon this question that every member of the medical profession in Georgia will stand back of it to a man, and will do his utmost to have free diphtheria antitoxin for Georgia at as early a time as is practicable.

DR. L. C. ALLEN, Hosehton: I fully agree with what has been said; at the same time, we should realize that this is a little more difficult proposition than one might think at first thought.

The State of Georgia is like "the old woman

who lived in a shoe, and had so many children she did not know what to do." There has been a deficit in the state treasury for many years, and there comes up before the legislature all kinds of worthy demands for appropriations. The state has to meet the demands for paying old soldiers, and the public school teachers, and supporting the sanitariums at Milledgeville, and at Alto; for the State Board of Health, the State University, and various agricultural colleges, and normal schools, scattered over the state; the salaries of state officers and scores of other expenses I might mention. Furthermore, the people are complaining about the high taxes all the time, saying they are too heavy, so that legislators are confronted with a situation that is perplexing. The only way we can ever succeed in getting legislators to give an appropriation such as the State Board of Health is entitled to is to cause them to see and realize and know that the money spent in that way would be more valuable, and worth more to the State of Georgia than it would be if appropriated for some other claims and demands and requests that come to them every day that they are in session. That is the proposition we are up against.

DR. THOMAS D. WALKER, Macon (closing): Dr. Allen stated the crux of the situation in his last sentence. It is our duty, and it is incumbent upon us to show the legislators the value and necessity of health. Certainly, there are lots of demands, and there always will be, on the legislature for appropriations, but if we are interested in this movement and as members of the medical profession of Georgia become impressed with the necessity of an appropriation, and show them that the death rate can be reduced from 14.5 per 100,000 to 2 or 3 per 100,000 of population, I feel sure that they will appropriate the money we are asking for.

## CASE REPORT OF FRACTURE OF FEMUR FOLLOWED BY FALSE JOINT.

M. C. Pruitt, M.D., F.R.C.S., Atlanta, Ga.

Patient—Mr. J. G. Concord, Tenn, March 27, 1921. American. Age 37. Single. Referred by Doctor Henry of Concord, Tennessee, for snapping hip.

Present Complaints—Right leg and thigh shorter and smaller than left. Has been slipping and snapping on certain movements of right hip for past six or eight months.

Family History—Father and mother both living and in good health. Four brothers and four sisters all living. One brother has rheumatism.

Past History—Has had usual diseases of childhood. Typhoid fever, age 12. In bed about three weeks. No complications. Gon-

orrhea in 1911 which lasted about six weeks. Epididymo-orchitis on right side for about two weeks starting at the beginning of the second week of urethral discharge. Has had no complications since. Has several scars on face and arms and loss of terminal phalanx of right index finger caused by accidents while at work. Patient has lived a hard life, working at a saw-mill and also as a long-shoreman.

**Present History**—In October, 1919, patient was running a "knee bolting" shingle-mill which required him to stand straddle a long hook which fed the carriage by pushing it backward and forward with his thigh. While at work an acute pain struck him in his right hip. He continued to work but had great difficulty and extensive pain in walking to and from the mill. While at work during the day he states that he felt a sharp, sticking sensation in the region of the right hip. On the morning of the fourteenth day after first acute pain, the pain became so intense, and the function of the limb so impaired, that he was unable to return to his work.

He called in a doctor, whom he states was a sort of "conjure doctor" and the only one available at this place. The "doctor" informed him that he had rheumatism and sciatica. The patient sent for some crutches, got out of bed, and was on crutches for about three months. Had three weeks' treatment under this "conjure doctor" without any improvement and then went on crutches to see a chiropractor. The chiropractor informed him that he could cure him by adjustments and sold him a card which entitled him to thirty treatments. This card,

which looks very much like a meal ticket, had numbers on it running from one to thirty which the doctor would punch each time the patient received an adjustment. The patient received 46 adjustments in about two months, for which he paid \$1.50 per treatment. After about twenty treatments he was advised to leave off his crutches and requested to walk and exercise the right leg as much as possible.

After two months' treatment from the chiropractor his condition was worse, if anything, so he decided to make another change and went to Soap Lake for mud baths. He still labored under the impression that he had rheumatism and sciatica. After five weeks of mud baths he showed no improvement whatever. He became so disgusted with this that he did not take any treatment for several months. In June, 1920, patient went to his father's home in Concord, Tennessee, as he was unable to work, and his condition continued to grow worse. At this time he was suffering with pain in the joints of both lower extremities. Dr. Henry was called to see him and administered a serum treatment and also advised him to have a specialist examine his right hip. The patient states that he improved after the serum treatment except for the symptoms in the right hip which continued to be less painful, but the sliding motion and the grating sensation on movement became more marked. About two months ago he went to see an osteopath. After an examination the osteopath requested an X-ray be made of his right hip joint, refusing to give him any treatment until this examination was made. He returned to Dr. Henry who referred him to me.

**Physical Examination**—March 27, 1921. Height 5 ft. 9 in. Weight 164 lbs. General appearance robust, healthy. Multiple scars on face, hands and forearm. Loss of terminal phalanx right forefinger. Enlarged inguinal and axillary glands. A benign tumor growth just above crest of left ilium (about size of dollar) and a small growth about the size of pea on back of left thigh—query neuro-fibromatosis. Patient walks with great difficulty with stick and with a very pronounced limp on right side. When standing

Dr. Glenn Theo. Strand

SANIPRACTIC (DRUGLESS) PHYSICIAN  
AND CHIROPRACTOR

608 HAIGHT BUILDING, SECOND AND PINE

DATE

Feb 12 1920

M. Goodman

ADDRESS

IF YOU CANNOT COME AT YOUR REGULAR HOUR OF APPOINTMENT,  
TIMELY NOTICE MUST BE GIVEN OTHERWISE CHARGE  
WILL BE MADE

PAYABLE IN ADVANCE

The second or unfinished card. The black dots are the punched out numbers. One each treatment.



flat on both feet he has to tilt the pelvis very much to the right side. He is able to stand on either foot but has some discomfort and a slipping noise in the region of the hip when his weight is placed on the right limb. Blood pressure, systolic 131, diastolic 80. Heart and lung sounds negative. Spine negative. Joints negative other than right hip. Gluteal fold not so distinct and slightly higher up than on left. Right leg two inches shorter than left. Right thigh 20 inches in circumference, left 20 1-2 inches. Right knee 14 inches in circumference, left 14 1-2 inches.

Bryant's triangle on left side horizontal line 2 1-2 inches, on right side horizontal

Indican ..... Negative  
Acetone ..... Negative  
Diacetic acid ..... Negative  
Microscopical Examination:  
Few pus cells. No casts.

#### X-RAY REPORT BY DR. J. W. LANDHAM.

"There is a fracture without union of the neck of the femur at its junction with the shaft. There is a shortening of the extent of about two inches due to displacement of the shaft of the femur upwards."

Diagnosis—Ununited extra-capsular fracture of the neck of the right femur which has become a false joint.

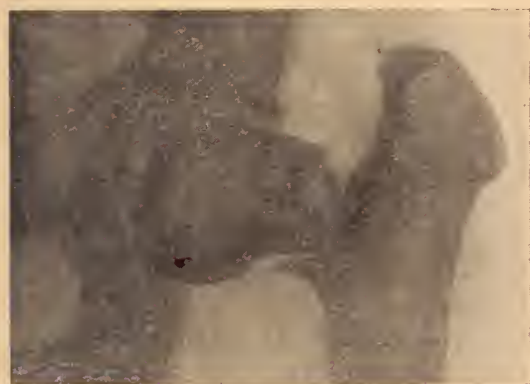
Treatment—This patient has promised to return for treatment as soon as he can make financial arrangements. I will do an open operation, bone graft or nail, according to the amount of bone absorption of the neck and head of the femur.

This case is of interest to me since it illustrates the importance of making a very careful and thorough examination after history of trauma or joint pains and never make a diagnosis of rheumatism or sciatica until we have made certain there is no fracture, dislocation or laceration of ligament.

#### BRONCHIAL ASTHMA.\*

Myron B. Allen, M. D., Hoschton, Ga.

From time immemorial Bronchial Asthma has been one condition that has baffled medical science. Various scientific institutions have spent millions of dollars in an effort to determine the underlying factor responsible for the production of this condition: Innumerable medical men have spent countless years of laborious and painstaking research without avail. Realizing the inability of our predecessors to determine the cause of asthma and their inability to effect any permanent relief, various "sure cure" patent medicines have been placed on the market and extensively advertised. As a result of this, people have been swindled out of countless thousands of dollars without material benefit. It is notoriously true that an asthmatic will grab at anything which promises relief and



X-ray—present condition.

line 1-2 inch. Abduction, adduction, flexion and extension of thigh freely movable and practically normal. Rotation much decreased. A rough sliding movement of the great trochanter upward when the weight is placed on this limb or in passive circumduction of right thigh.

Blood: Wassermann: Negative.

Malaria: Negative.

Differential count:

Polynuclears ..... 60 per cent.

Large lymphocytes .. 2 per cent.

Eosinophiles ..... 3 per cent.

Small lymphocytes ... 35 per cent.

#### Urine Examination:

Chemical Examination:

Transparency ..... Clear

Reaction ..... Acid

Color ..... Amber

Sp. gr. .... 1.025

Sugar ..... Negative

Albumen ..... Negative

\*Read before the Ninth Dist. Medical Association (Ga) March 16, 1921, at Gainesville, Georgia.



when that thing fails they are prone to scrutinize the papers in search of another "remedy." That we can today offer permanent relief to the majority of these individuals who are otherwise doomed to a life of periodic anxiety and suffering is a result of modern medicine of which we may feel justly proud.

It is not my desire to discuss this from the standpoint of symptoms, diagnosis, pathology and medicinal treatment, but to merely state the different etiological factors responsible for its production, how you determine these and the specific protein therapy.

**Etiology.**—Given a susceptible individual, we may say that asthma is caused by one or more proteins. These may be in the form of food proteins, bacterial proteins pollens or animal emanations. Among the food proteins may be mentioned pork, rice, wheat, corn, potatoes, milk, turnip, fish casien, egg, chicken and lamb.

Among the bacterial proteins are those from the streptococcus hemolyticus (most frequent), staphylococci, diphtheroid bacilli and occasionally others.

We may mention, among the pollens, alfalfa, ash, birch, black walnut, burdock, cat tail fig, chamomile, cherry, clover, cocklebur, dahlia, daisy, dock elm, fleabane, golden glow, goldenrod, greasewood, hickory, horse chestnut, joe pye weed, june grass, maple, narcissus, orchard grass, pine, poplar, privet, rag weed (giant and dwarf), red top, rose, rye, sunflower, timothy, tomatoe, wild carrot, willow, yarrow and yellow daisy.

Those coming under the head of animal emanations are horse dandruff, cattle hair, dog hair, chicken feathers, goose feathers, cat hair, furs and wool.

Now, how are we going to determine what particular protein is responsible for a given case of asthma? A careful history of the patient is a valuable asset, and in that history the following facts should be brought out: how long has he had asthma; is it seasonal or does it occur thruout the year (this will determine whether or not it is pollen asthma, commonly termed "hay fever"); what articles of food constitute his usual diet? Then inquire into his environment, as to whether

or not he sleeps on a feather pillow or feather bed, is thrown with horses, cattle, dogs, or chickens. Ask about the things which would lead you to suspect some focal infection, as attacks of tonsillitis, appendicitis, cholecystitis or abscessed teeth, and in the female diseased reproductive organs. A good, carefully taken history gives us a fairly definite idea as to what proteins to suspect and which to test. We should, by close questioning and recording the answers, limit our proteins to six or ten, and each of these is tested as follows: The flexor surface of the forearm is cleansed with alcohol and allowed to dry. By means of a sharp, sterile scalpel a number of small cuts or abrasions are made on the cleansed forearm. These may be made transversely or longitudinally and should be about 3 mm. long and 1.5 cm. apart and just deep enough to penetrate the skin without drawing blood. The suspected proteins are then selected and one placed on each cut, to which is added one or two drops of a freshly prepared solution of decinormal sodium hydroxide. (These proteins may be obtained from various chemical companies.) A control test, on which is placed only the NaOH may be made with which to compare the reactions. A positive reaction occurs within 30 minutes and consists of a raised elevation or urticarial wheal surrounding the cut. At the end of 30 minutes the proteins are washed off and the reactions recorded. The smallest POSITIVE reaction must measure at least 5 mm. in diameter. All reactions smaller than this are called doubtful.

**Treatment.**—We will deal here only with the protein desensitization, which is the most successful. The patient is desensitized to the proteins to which he is found susceptible by the cutaneous tests. Those reacting to food proteins may, by elimination of the offending food from their diet, be relieved, or the food may be modified and then eaten with impunity. It has been found that high temperatures destroy the anaphylactic properties of proteins, thus, raw milk may be boiled and taken with impunity by those susceptible to milk. Wheat bread may be toasted and potatoes baked. Boiling potatoes doesn't destroy their anaphylactic properties. Egg is probably the only food that cannot be thus

treated, because after sufficient heat is applied to egg to render it non-anaphylactic it is non-palatable. Some foods may contain certain proteins in insufficient amounts to cause symptoms. Rice contains 6.5 per cent. oryzenin, and if an individual is not sensitive to this protein he could eat rice without trouble, since the other proteins present are in such minute quantities that they would probably cause no trouble. This is true of a number of foods. I have seen patients who were able to eat small amounts of certain foods without trouble, whereas larger amounts caused symptoms.

Desensitizing those whose asthma is caused by animal emanations gives very satisfactory results. This is done by subcutaneous inoculations with the offending protein and the one important feature about this mode of treatment is the determination of the proper initial dose. This is most important, since too great a dose will provoke an asthmatic attack, whereas too small a dose will do no good. The dilutions are made with N-100 NaOH in the proportion of 1:100; 1:500; 1:1000; 1:10,000; 1:1,000,000 (one part of the protein diluted 100 times with N-100, NaOH, etc.) It is not advisable to treat those who react to as strong a solution as 1:100 and who fail to react to a weaker solution than this, because such intimate contact with that particular protein can be easily avoided. This is tested the same way as before described, using the varying dilutions on the cuts as the proteins were used and recording the dilution which gives a reaction. Those reacting to dilutions of 1:10,000 and above certainly should be treated, because it would be hard to avoid contact with the animal hair, however remote—in the bounds of reason—without having trouble. The initial dose is 0.1 CC OF THE STRONGEST SOLUTION THAT FAILED TO GIVE A POSITIVE SKIN TEST. This is given each four or five days, slowly increasing the dose until about 1 c. c. is given. The next strongest solution is then given, the first dose being 0.1 c. c. and slowly increasing up to 1 c. c. before commencing the next strongest solution and so on. There is a diminution in the positiveness of the skin test coincident with the progressive increase of the treatment until

there is a failure to the response of the concentrated protein by the skin test. When this occurs the individual is absolutely desensitized. Improvement is usually noted fairly early, though occasionally not until eight or ten injections. Where there exists an extensive bronchitis, if, indeed, this can be called a disease entity, vaccines are usually required in addition to the protein therapy.

The type of asthma caused by the plant pollens, heretofore known as "hay fever" are handled in the same way. However, it is usually not necessary to employ such high dilutions and the treatment should precede the pollen season.

The foci of infection in those reacting to bacterial proteins should be searched for and, if found, removed if possible. The attention should be especially directed to the teeth, appendix, gall bladder, tonsils, and, in the female, to the reproductive organs. They should be treated with vaccines, from the particular strain of organism with which they are found to be infected, the initial dose being about 200,000, 000. Where there exists a multiple sensitization the treatment is a matter of judgment.

In asthmatic bronchitis, i. e., that condition of acute bronchitis upon which is superimposed a chronic bronchitis resulting in pseudo-asthma, vaccines have proved useful in the majority of cases, provided the proper organism is given. Needless to say the autogenous vaccine is superior to the stock vaccine. This is made in the usual manner and obtained from the sputum or nasal secretion, should there be one, or both.

The process of desensitization requires patience and occupies a period of two to six months or more. It cannot be hurried along, because a little too concentrated solution will provoke an asthmatic attack and a solution too weak will prove useless. The one IMPORTANT feature is to determine the proper INITIAL dose, i. e., 0.1 c. c. of the strongest solution that fails to give a positive skin test. For example, if a dilution of 1:100,000 gives a positive skin test, whereas a solution of 1:200,000 does NOT, then the initial dose should be 0.1 c. c. of the 1:200,000 the strongest solution that FAILED to give



a positive skin test. We have had occasion to try this out in some fifteen patients, the records of some of whom are recorded below. I have purposely omitted such things in the history which do not bear on the case and have left off the physical findings.

Case No. 1.—T. W., American farmer. Single. Age 29.

F. H.: Negative

P. H.: Ordinary childhood diseases, otherwise negative.

P. I.: Onset 5 years ago. Has occasional attacks throughout all seasons. Attacks seem to be precipitated by "colds," wetting or dust. Eats a general diet consisting of milk, eggs, wheat, pork, chicken, rice, potatoes, beans etc. Sleeps on a goose feather bed, has a dog, cat and chickens, and is thrown with cattle and horses. The following proteins were tested: wheat, milk and corn were negative. Goose feathers, chicken feathers and corn (pollen) each gave a very faint reaction. Horse dandruff was positive, the reaction being large. He was desensitized to horse dandruff, the initial dose being 0.1 c. c. of a 1:100,000 dilution, gradually increasing until 1 c. c. of a 1:500 dilution was given. He then failed to react to the concentrated protein and his asthma is apparently relieved.

Case No. 2.—Mrs. H. Amer. housewife. Multipara. Age 54. Family and past history unimportant as regards her asthma. Has had occasional attacks for the past fifteen years, the past two of which it has been an almost constant annoyance. Her diet is a general one. She keeps poultry and is thrown with cattle and horses each day. Sleeps on a goose feather bed. The following proteins were tried out: Dog hair, cattle hair and horse dandruff were negative. Milk and pork both gave a faint reaction. Wheat gave a little more marked reaction. Goose feathers were positive. This test was made while the patient was confined to her bed with a hard asthmatic attack. She was on a feather bed and this was removed. Strange as it may seem, the attack stopped in five minutes after the feather bed was carried out, and she remained free from asthma for a period of three months. At the end of that time the

bed was brought back into the house and placed in a room adjoining her room. That night when the door between the two rooms was opened she was seized with another attack of asthma. The bed was again removed with a cessation of the attack. Every time she gets around goose feathers she has an attack of asthma. She was visiting her sister several months afterwards and went into a room where there was a goose feather bed and was immediately seized with an asthmatic attack. You recall she had a slight reaction to wheat and says that if she eats too many wheat biscuits she notices a wheezing in several hours.

Case No. 3.—B. C. School boy. Age 7.

F. H.: Negative.

P. H.: Eczema when about 3 months old. Pertussis and influenza. Recovery from both complete without complications or sequelae. Had a tonsillectomy and adenoids removed last spring.

P. I.: Onset at the age of 2 years. Non-seasonal, though more troublesome and more frequent during the winter months. More or less constant since last September. (This was in December.) Diet consists of milk, eggs, wheat, corn, Irish potatoes, peanuts, rice and lima beans. Sleeps on a feather bed. Does not wear wool and is not thrown with any animals. Tests: milk, wheat, corn, potatoes, streptococcus hemolyticus, staphylococcus pyogenes albus and aureus were all negative. There was a faint reaction from goose feathers, chicken feathers and potatoe. The egg was found positive. Eggs were eliminated from his diet and the last I heard from him, two months after the tests, he had remained free from asthma.

Case No. 4.—E. H. American. Single. Age 15. Weight 90.

F. H.: Negative.

P. H.: Smallpox and whooping cough have been her only diseases.

P. I.: In October, 1919, her first asthmatic attack appeared and followed an attack of acute bronchitis, since which time she has been troubled more or less constantly. She eats a general diet, lives on the farm and is thrown with all domestic animals. Tests: wheat, milk, corn, streptococcus hemolyticus,



staphylococci, chicken feathers and horse dandruff were all positive. Goose feathers, dog hair, corn (pollen), egg, chicken, potato, casein, peanuts, rag weed and pork were all negative. I did not attempt anything on this little girl but medicinal treatment and her asthma is about as bad today as it was the day I commenced. She will not yield to medicinal treatment. The only thing of importance that I found on physical examination was a goiter. Whether or not her asthma is caused from increased thyroid secretion I do not know. She has a tachycardia, but there is no tremor, exophthalmos, etc. This goiter has been progressively increasing in size since she was tested (5 months ago). Whether or not this progressive increase in size has been due to the iodides she has taken I do not know. I am anxious to see what effect ligation of the superior thyroids, or partial removal of the gland, would have on her asthma.

Case No. 5.—A. F. This man has suffered from asthma for five years. Last summer he spent a month in Nachoochee Valley, Ga., during which time he was free from the attacks. He attributed this improvement to the change of climate, since he was seized with an attack the day he returned home. Upon questioning it was learned that he ate the same general diet at Nachoochee that he was accustomed to eating at home. He had a pet dog which slept in the room with him. This dog was not with him at Nachoochee. His attacks came on every night about dark. Thinking perhaps that the dog hair was the thing responsible for his asthma, this was tested and found negative. He was further questioned about the things he did each night about dark and it was learned that he milked each day at this time, his wife milking in the mornings. Further questioning brought out the fact that he was not thrown with cattle at Nachoochee. He was then tested for sensitiveness for cattle hair and this was found positive. His wife now milks twice a day and he has not had an asthmatic attack since the last day he milked.

## VERNAL CATARRH

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Hay fever usually affects adults and appears in Spring and early Fall. Vernal catarrh or conjunctivitis follows the same seasonal and climatic tactics but is confined principally to children.

Pollen from certain plants and flowers are closely related as etiological factors in hay fever. Noting the similarity of these affections we are testing out reactions to Spring and Fall pollens in cases of vernal catarrh, and where we secure positive local reactions are administering the pollen extract.

As yet we have been able to watch far too few on which to base a report. One very severe case has cleared up promptly, although this may be a coincidence, not the result of the pollen extract.

We hope to be able to give a definite report by November or December.

—A. G. Fort.

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## IMPORTANT NOTICE

This is the directory number of the Journal. Look over the list carefully. Notify the Secretary promptly of all errors and omissions.

**THE JOURNAL**

OF THE

**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia.

Office of Publication: 822 Healey Bldg., Atlanta, Ga.

**JULY, 1921**

Editor

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C. W. ROBERTS, M. D.

E. S. OSBORNE, M. D.

Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****THE VALUE OF ORGANIZATION.**

One might have the strength of Hercules, the wisdom of Solomon, the executive ability of Napoleon, the power of the erstwhile Czar, yet with all these, one alone would be as helpless as a jelly fish in the midst of the Sahara Desert, though possessed of the gold of Ophil, the diamonds of South Africa, the pearls of the Orient and the wealth of Croesus. This studied to the last analysis gives one an insight into the value of organization. All that we know, can know or will ever know, is obtained either directly or indirectly by personal touch with our fellows; and all that we know, can know or ever will know is worthless unless we continue to possess that touch. Without organization medicine would have never risen above the necromancy of ancient priests, or the sciences of surgery

above the phlebotomies of medieval barbers. Whatever attainments a doctor may possess, he has not done his duty until he goes among his comrades gives them the benefit of what he has accomplished and learns of them what they have to give.

Every doctor in Georgia who is not a member of his county society and state association is a derelict to himself, his fellow doctors and to society. He is a derelict to himself because he is not giving the best that is potentially in him until he associates with his fellows and learns of them things that they know and he does not; he is a derelict to his comrades because if he has not buried his talent he has certainly learned something to give freely to those who have given him so much; he is a derelict to society because he has pledged himself to serve, and he serves poorly who does not attempt to get much and give all.

Awake Councillors of the respective districts! Awake Secretaries of the respective societies! Awake Fellow Members of the Medical Association of Georgia! Let us start a drive that will bring every eligible man into the fold of our Association. We can do this and all will receive untold benefit. We had at our last meeting only two hundred and fifty members when we should have had a thousand. We have a membership of the Association of about fourteen hundred, when it should be more than double this. Secretaries, your President earnestly appeals to you to see every man in your county that you deem worthy and get him enlisted in your society. Councillors, your President appeals to you from the depths of his heart to see all your Secretaries and where they haven't 100% membership, learn the reason why. Fellow members, try to enlist every doctor of your acquaintance who is worthy and not a member of the Association. Tell him the importance of becoming so and if you cannot secure him, obtain the co-operation of your County Secretary, your Councillor, your State Secretary, your President. Until all this is done our duty is still unperformed.

From a selfish, pecuniary standpoint alone one cannot afford not to be a member. The doctors of Georgia for the last several years have been saved thousands of dollars by virtue of the Medical Defense feature of our Associa-

tion. For the small amount of \$5.00 one is protected against all mal-practice suits. The tendency to sue doctors for mal-practice is growing every day. Simply the hire of a lawyer to defend one is small compared to having the Medical Association of Georgia standing squarely behind every one of its members in trouble. He is defended morally, financially, socially and professionally by a solid phalanx of one of the best organizations of medical men in the world. This comfort cannot be estimated in money.

The Journal of the Medical Association of Georgia is one of the best medical publications in the country. Any one of the multitudinous features that occur in this Journal might be read and cause one to feel that one had been paid many times the price of admission. Its contents are selected and compiled with the greatest care and every page is chock full of meat. Have a prospective member read a late copy of your Journal, and assure him that each successive number will be an improvement upon previous ones.

The social features of organization are invaluable. Pardon me for the personal reference. I would feel as helpless without the friendships which I have made among the doctors as is a two inch minnow in a lake of trout. In becoming a member of the Medical Association of Georgia every doctor in your county becomes your personal friend. You have an opportunity of becoming a friend to every doctor in the state and having him as your friend, and the American Medical Association offers to you all of its advantages and possibilities. Engendering of jealousies, prejudices and bitterness will be minimized and those already existing will be allayed.

Let us all get together and make this the greatest year that the Medical Association of Georgia has ever known.

E. C. Thrash, M.D.

#### SOME PROBLEMS OF THE JOURNAL.

We are making an earnest effort to improve the Journal from every standpoint. There is no reason why the Journal of the Medical Association of Georgia should not measure up to the standard set by the best medical publications in the entire medical world. Surely Georgia can boast of as good medical and surgical

talent as can be found anywhere. If this be true, why should hastily and poorly written papers be submitted for publication? It is not because of indifference, or lack of ability, but rather because of delay and haste in the preparation of papers. Therefore, let us urge each and every member of the Association to help us by submitting only carefully prepared and correctly written articles for our Journal.

Recently we submitted a number of articles, which had been read at the meetings of the Association and the various constituent societies to impartial committees for review. The following are some of the comments of the committees:

##### Paper No. 1.

"This article has been edited rather freely, as in its original form it could hardly be published in a journal with fair literary standards.

"The subject matter is worth publishing, and I recommend it for publication in its revised form."

##### Paper No. 2.

"This paper should not be published for the following reasons:

"1. The cardinal symptoms (of appendicitis) are those enumerated in all text books, and are familiar to all physicians. Such a paper may be all right to be read before a small county society, but is hardly of sufficient value for publication.

"2. The composition is awkward and full of grammatical and rhetorical errors.

"3. The illustrative cases are evidence of insufficient study and throw no particular light on the main point brought out in the 'body' of the paper."

##### Paper No. 3.

"This paper consists of two paragraphs, one three and one-half pages, and the other one page long.

"It is a ramble rather than a carefully arranged comprehensive article.

"It is totally unfit for publication."

##### Paper No. 4.

"This is an unusually valuable paper and deserves more careful preparation. Am quite sure that Dr. ——— is competent to put it in better English. Have indicated a few changes, but many sentences need complete reconstruction and would suggest that, if you think advisable, you have him rewrite it. As it stands, it is far above the average and is too good to present in a poor dress."

##### Papers Nos. 5, 6, 7, 8, 9, 10.

"We are returning the papers you sent us a few days ago and wish to call particular attention to the papers of Drs. A. and B. Dr. A.'s paper is



"ready to ride" and would be especially timely for the June or July issue. Dr. B.'s matter is good and satisfactorily arranged but his sentences are too involved. He could put it in much better shape with an hour or so's work.

"The other papers we have graded "B" and "C" except some which are scarcely worth while.

These reports illustrate the more common defects, all of which may be easily overcome. This is *your* Journal. Please help us to improve it.

—A. H. B.

### MEETING OF THE THIRD DISTRICT MEDICAL SOCIETY.

The Third District Medical Association held its semi-annual session with Sumter County Medical Society at Americus, Georgia, June 15th, with about seventy-five physicians and their wives, throughout the District, in attendance.

A Malarial Symposium was the first item on the scientific program, and proved to be the most interesting as well as instructive thing of the kind ever presented in the history of the Association.

Dr. E. C. Thrash, President and Dr. Allen H. Bunce, Secretary, of the Medical Association of Georgia, and Dr. T. F. Abercrombie, State Health Commissioner, added a great deal to the interest and benefit, not only to this particular part of the program but to the entire session, by their instructive papers and discussion, as well as their presence. Dr. Thrash's address on "Organization and Progress in Medicine" was considered by all that heard it as being one of the best and most convincing of any address on this subject that have ever been delivered to this Association.

The doctors' wives and intended wives were especially invited to attend this meeting, but were separately entertained by the ladies of Americus until 7:30 P. M., when all were invited to enjoy a most elaborate and delightful banquet at the Windsor Hotel, as guests of Sumter County Medical Society, which lasted about two hours. Quite a number of "after dinner" speeches were given, which added to the entertainment and pleasure of the occasion.

At about 9:30, after every one had expressed their appreciation to the Sumter County Medical Society, and to the ladies of Americus for their royal entertainment, the Association adjourned.

—Chas. A. Greer, Sec.

### MEETING OF THE TWELFTH DISTRICT MEDICAL SOCIETY.

The Twelfth Congressional District Medical Society held its semi-annual meeting Wednesday, June 15, 1921, at Vidalia, Ga. The meeting was called to order at 2 p. m. at City Hall by President Dr. E. B. Claxton. The following program was rendered:

Invocation—Rev. W. M. Blicht, Vidalia, Ga.

Address of Welcome on behalf of the city of Vidalia—Col. B. P. Jackson, Mayor of Vidalia.

Address of Welcome on Behalf of Tri-County Medical Society—Dr. J. W. Palmer, Ailey, Ga.

Response to addresses of Welcome—Dr. J. E. New, Dexter, Ga.

#### Scientific Program.

The Heart in Pneumonia—Dr. F. O. Bell, Reidsville, Ga.

Focal Infection—L. H. Darby, D.D.S., Vidalia, Ga.

Cancer Control—Dr. G. R. White, Savannah, Ga.

What We Know About Cancer—Dr. T. C. Thompson, Vidalia, Ga.

Presentation of two orthopedic cases, showing the importance of early recognition and treatment of foot troubles—Dr. Theo. Toepel, Atlanta, Ga.

Cancer of the Womb and Its Treatment with Radium—Dr. G. T. Bernard, Augusta, Ga.

The Georgia Workmen's Compensation Act: Its Medical Aspects—Dr. C. W. Roberts, Atlanta, Ga.

Pseudo-Medical Cults—Dr. J. W. Palmer, Ailey, Ga.

The X-ray and Its Uses — Dr. W. C. Thompson, Dublin, Ga.

Report of Fracture of Femur Followed by False Joint—Dr. M. C. Pruitt, Atlanta, Ga.

Later Views on Endo-cervicitis—Dr. R. C. Franklin, Swainsboro, Ga.

Motion picture at 5:30 (20 minutes)—“Unhooking the Hookworm”—Dr. O. H. Cheek, Dublin, Ga.

Election of officers.

Next place of meeting, Dublin, Ga., Dec. 14th, 1921.

Banquet at New Vidalia Hotel at 7:30 p. m. Guests Vidalia Kiwanis Club.

Swimming at Vidalia Natatorium.

### REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

Gentlemen: The Committee on Public Policy and Legislation beg to report that the chief work of this committee during the past year was the defeat of the Chiropractic Bill in the Legislature. We understand that this same bill will in all probability come up again this year, and we suggest that members of the profession use their influence with their Legislators and Senators to the end that this proposed legislation be again defeated, or at least amended in such a manner as to preserve the dignity of the profession and the present high standards of medical education in this State.

Respectfully,

L. C. ALLEN, Chairman.

### THE MARTIN CLINIC

Dugan-Stuart Building, Hot Springs, Ark.

Founded by the late Dr. E. H. Martin,

Will be continued by his staff.

Dr. E. A. Purdum, Chief of Staff; Dr. W. G. Klugh, Dr. W. F. Porter, Dr. T. S. Lorton, Dr. C. W. Jennings; W. J. Ford, Roentgenology; C. W. Abel, Clinical Pathology.

The graduating exercises of the Training School for Nurses of the Georgia Baptist Hospital were held on Tuesday, the 7th of June at 8 o'clock at Ponce De Leon Baptist Church, Atlanta, Ga.

The following nurses received their diplomas:

Miss Nell Osborne, Tifton, Ga.

Miss Mary Hearn, Burwell, Ga.

Mrs. Irene Dickerson Lucas, Dupont, Ga.

Miss Mary Adeline Ponder, Atlanta, Ga.

Miss Lillie Nicholson Miller, Atlanta, Ga.

Miss Sarah Willie Teasley, Hartwell, Ga.

Miss Mayme Myrtle Hall, West Point, Ga.

Miss Avalona Leigh Randall, Blacksburg, S. C.

Miss Mary Agnes Clarke, Atlanta, Ga.

Mrs. Marguerite E. Paige, Goaz, Brazil.

Miss Jessie Grace Nelson, Woodland, Ga.

Miss Mollie Katherine Teasley, Hartwell, Ga.

Miss Iva Ethelyn McWhorter, Greensboro, Ga.

Miss Lillian Kathleen Watson, Pinehurst, Ga.

Miss Sara Elizabeth Alexander, Bremen, Ga.

Miss Mittie May Harris, Columbus, Ga.

Miss Uula Lee McKnight LaFayette, Ga.

Miss Jimmie Sue Huling, Columbus, Ga.

Miss Maye M. Moore, Lutaton, Ga.

Miss Rebecca Erskine Florence, Atlanta, Ga.

Miss Nina Duleye Camp, Fairburn, Ga.

Miss Mettys Clyde Clay, Calvary, Ga.

Miss Willie Annie Baughn, Carrollton, Ga.

Miss Marie Passmore, Flemington, Ga.

Motto—"Post Phoebeus Rabus."

### NEWS ITEMS.

Vanderbilt Medical School has just announced an additional gift of \$3,000,000. This donation is to be used as an endowment fund. The total assets of the Vanderbilt Medical School, including the latest endowment fund, equals about \$8,000,000. This figure includes the first \$1,000,000 gift to the school made in May, 1913, by Mr. Carnegie, \$4,000,000 donated by the General Education Board, 1912, the \$3,000,000 endowment fund, June 7, 1921.

### DEATHS.

Dr. J. A. Burch, of Eastman, Ga., died May 5, 1921.

## BOOK REVIEWS.

## THE ENDOCRINES.

By Sam'l Wyllis Bandler

W. B. Saunders Co., Philadelphia.

This book presents mainly the author's experience and his theories regarding endocrine therapy. He is a pioneer in this field, and he writes an as enthusiast and like many another enthusiast he is probably carried away by his enthusiasm. No field of medicine has ever offered such interesting possibilities as the study of the ductless glands. There is no study which can stir the imagination to a greater extent, and is so small wonder that the imagination of the investigators and experimentors in glandular therapy should at times run a little wild.

Our knowledge of many of the phases of endocrinology is in an unsatisfactory and chaotic state. The author, however, thinks there is more than enough known to form a working basis for the understanding of many hereditary, physical, and psychic problems. His conclusions are drawn largely from personal observation and represent empirical knowledge rather than scientific knowledge. Many statements are put forth as though they were definitely established and proven facts, when they are little more than theory. The author, however, should no doubt be commended for putting his theories into print. He states in the introduction that "it would be idle to claim that there may be no change in some of these theories, but a beginning must be made, and while a beginning is made with hesitation, these opinions are offered on the basis of therapy fortified by clinical observation."

Our advance in this field must needs depend upon critical clinical observation to a greater extent than upon laboratory data, but careful unbiased conclusions must be drawn. Negative results must be considered as well as positive, and an open mind maintained at all times. Inferences drawn from clinical cases are so often misleading because there is difficulty in getting away from the psychic element.

In the book, which contains 475 pages, an attempt is made to cover the entire subject of the internal secretions, but special emphasis is made to the relation of the ductless glands to gynecology. Chapter V is on the general subject of the "Endocrines in Gynecology." Chapter IX is devoted to the "Higher Up" Theory of Sterility in Women. The ideas expressed here are interesting and reasonable but not entirely original. The object of treatment is to favor the "embedding and nesting" of the ovum by giving glandular extracts, and the author claims much better results than from any surgical procedures. A number of cases of sterility are cited where glandular therapy alone was used in the treatment of sterility with positive results in a large proportion of the cases within a few months after treatment was instituted. Chapter X deals

with "Pregnancy, Labor, and the Placental Gland." This chapter is filled with theoretical statements and deductions (some of which the author states are being proved) as to the co-operation and conflict between the internal secretions. Some gland extracts stimulate, others inhibit, etc. Some of the statements are as follows:

"The transient albuminuria present in some cases in the early months is probably due to the irritating effect of placental secretions or to hypothyroidism." "Over stimulation of the posterior pituitary is, with thyroid minus, the basic endocrine factor in the toxemia of pregnancy."

One other chapter has to do with dysmenorrhea and the role played by the internal secretions in this condition. Then follow chapters on "Instincts and Emotions," "Mental and Nervous Defects," "Mental Deficiency and Criminality," "Phobias, Etc.," with a chapter on "Therapeutic Suggestions" and one on "History and Symptoms." The balance of the book is taken up with clinics and lectures, and a large number of very brief case reports. These latter are rather unconvincing and confusing. The book on the whole is interesting but not conclusive; it is worth reading, but one must keep in mind that our knowledge of the internal secretions is still unsettled and hazy, and one must not be lead into error by placing too much reliance on statements of physiological facts which are as yet unproven.

—SHALLENBERGER.

## PRINCIPLES OF HYGIENE SECOND EDITION.

By D. H. Bergey, A. M., M. D., Dr. P. H., Assistant Professor Hygiene and Bacteriology, University of Pennsylvania. W. B. Saunders & Co.

The author describes his book as a manual for students, physicians, and health officers. This is a good review within itself, for the book contains all of hygiene necessary for the student and general practitioner, and presents to those already versed in the principles discussed all the new phases brought by war and changing industrial conditions. It is not exhaustive in its scope and is therefore not intended for use as a general reference. This criticism may be considered favorable, for all phases of the work are either mentioned or described. Those described in detail are given in a plain, simple style, with an explanation of the principles involved. Where details are omitted, proper references are given. Problems of the future are discussed briefly and plans for solving them outlined. We believe that Hygiene of the Soldier deserves more attention than the author has allotted to this subject. The disposal of garbage and sewage is carefully discussed from all standpoints. The author is to be complimented for his section on industrial hygiene.



This important and broad subject receives here its full share of consideration.

In general, the book is easy to read. The author has the gift of properly using comparisons as means of explanation. His easy style and clarity of expression are remarkable. There is a conspicuous absence of tiresome expositions of one-man ideas.

HAL M. DAVISON.

## THE SURGICAL CLINICS OF NORTH AMERICA.

A bi-monthly journal to include the work of all the leading surgical centers of America. Philadelphia Number. February. Vol. 1, No. 1. (Philadelphia and London; W. B. Saunders Company.)

A large group of physicians throughout the country, especially those located away from the main centers, have always felt keenly the difficulty of keeping in touch with up to date methods of diagnosis and surgical treatment. The popularity of the Surgical Clinics inaugurated by Dr. John B. Murphy was evidence of the value to be derived from the clinical idea in teaching. The Surgical Clinics of North America is a continuation of the Surgical Clinics of Chicago broadened in scope to include the work of other surgical centers. The first volume is the Philadelphia number and includes the surgical clinics of Dr. John B. Deaver, Dr. Charles H. Frazier, Dr. John G. Clark, Dr. John H. Gibbon, and others.

The great variety of the papers makes it impracticable to give any review in detail.

Dr. W. W. Keen in the introduction to this volume strikes a timely note in his plea for the use of the purest and best English style in the writing of medical papers. He says, "Only by reading with an eye always to style and by severe self-criticism can one reach this goal. My own rule in every paper I write is first to be sure that my facts are right, my reasoning logical, my conclusions valid. Then, finally, I read every word solely with a view to its English style. And how often I catch myself lacking in clarity, using too long sentences, committing even grammatical blunders, or else a locution far inferior to one which now suggests itself to my mind. If possible, I always like to lay my paper aside for a month or more, and then revise anew. One reads it almost as if it had been written by someone else. His mind is fresh, unleashed from the network of the well-worn familiar phrases, and he always finds means to improve and polish his English."

The Journal is attractively gotten up. The material is well arranged with numerous excellent illustrations and diagrams.

—HOLMES.

## KEEN'S SURGERY Volumes VII and VIII.

By surgical experts. Edited by W. W. Keen, M. D., L. L. D., Hon. F. R. C. S., Eng. and Edin., Emeritus Professor of the Principles of Surgery and Clinical Surgery, Jefferson Medical College, Philadelphia. Volume VII, Octavo of 855 pages with 359 illustrations, 17 of them in colors. Volume VIII, Octavo of 960 pages with 637 illustrations with 12 of them in colors. A separate Desk Index for the entire eight volumes. W. B. Saunders Co., 1921 Philadelphia and London.

All those who have the earlier six volumes of this invaluable work will be pleased to learn that Volumes VII and VIII and a complete desk index has just been published. These two volumes contain progress in surgery during the period of the great war and on up to the present.

The authors need no introduction as they are the same who contributed to the first six volumes except in a few cases where death intervened. One, "time honored" name is missing: Sir William Osler, who had consented to write the chapter on "The Surgery from the Physician's Point of View."

This is probably the most complete and best available work written on surgery.

—Pruitt.

**WRITE  
FOR PRICES ON  
RE-PRINTS**

# DIRECTORY, MEDICAL ASSOCIATION OF GEORGIA, 1921

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Randolph, W. T., Winder, Ga.  
Ross S. T., Winder, Ga.  
Saxon, E. F., Winder, Ga.

## BARTOW COUNTY.

### Officers.

President, ----- Adair, R. E.  
Vice-President ---- Wilson, R. E.  
Secretary, ----- Felton, H. E.  
Delegate ----- Felton, H. E.

### Members.

Adair, R. E., Cartersville, Ga.  
Bradford, H. B., Pine Log, Ga.  
Bowdoin, J. P. Adairsville, Ga.  
Felton, H. E., Cartersville, Ga.  
Griffin, W. C., Cartersville, Ga.  
Howell, S. M., Cartersville, Ga.  
Lowry, D. T., Cartersville, Ga.  
Mahugh, James, Whites, Ga. r.f.d.  
Wilson, R. E., Cartersville, Ga.  
Wofford, W. E., Cartersville, Ga.

## BEN HILL COUNTY.

### Officers.

President ----- Luke, J. M. J  
Vice-President ---- Ward, Frank.  
Secretary ----- Coffee, W. P.

### Members.

Coffee, W. P., Fitzgerald, Ga.  
Cohen, M. S., Fitzgerald, Ga.  
Dorminy, E. J., Fitzgerald, Ga.  
Dorminy, W. D., Fitzgerald, Ga.  
Luke, J. M. J., Fitzgerald, Ga.  
Russell, E. O., Fitzgerald, Ga.  
Thornton, L. E., Fitzgerald, Ga.  
Ware, D. B., Fitzgerald, Ga.  
Ware, R. M., Fitzgerald, Ga.  
Ward, Frank, Fitzgerald, Ga.  
White, T. E., Fitzgerald, Ga.

## BERRIEN-COOK COUNTY.

### Officers.

President ----- Webb, M. L.  
Vice President ---- Scruggs, C. G.  
Secretary ---- Hutchinson, L. R.  
Delegate ----- Burch, R. N.  
Alternate ----- Askew, P. H.

### Members.

Askew, P. H., Nashville, Ga.  
Burch, R. N., Milltown Ga.  
Carter, L. A., Nashville, Ga.  
Clements, H. W., Ray City, Ga.  
Etheridge, S. G., Sparks, Ga.  
Hall, E. J., Adel, Ga.  
Hutchinson, L. R., Adel, Ga.  
Lovett, L. B., Sparks, Ga.

Moore, W. A., Alapaha, Ga.  
Rentz, L. S., Ray City, Ga.  
Rentz, W. C., Nashville, Ga.  
Scruggs, C. G., Lenox, Ga.  
Selman, G. S., Nashville, Ga.  
Shepard, W. M., Adel, Ga.  
Smith, Louis, Milltown, Ga.  
Webb, M. L., Nashville, Ga.  
Woodard, R. C., Adel, Ga.

## BIBB COUNTY.

President ----- Rogers, T. E.  
Vice-President ---- Holmes, J. P.  
Secretary ----- Peavy, H. J.  
Delegate ----- Cleghorn, C. D.  
Alternate ----- Sigman, J. M.

### Members.

Adams, I. H., Macon, Ga.  
Anderson, C. L., Macon, Ga.  
Anderson, J. C., Macon, Ga.  
Barrow, H. L., Macon, Ga.  
Bashinski, Benj., Macon, Ga.  
Blackshear, T. E., Macon, Ga.  
Carswell, N. T., Macon, Ga.  
Cater, R. L., Jr., Macon, Ga.  
Cleghorn, C. D., Macon, Ga.  
Clark, M. A., Macon, Ga.  
Coward J. W., Walden, Ga.  
Corn, Ernest, Macon, Ga.  
Coleman, Y. R., Macon, Ga.  
Daniel, Orman, Macon, Ga.  
Duguid, J. W., Macon, Ga.  
Fountain, J. A., Macon, Ga.  
Gostin, B. S., Macon, Ga.  
Greene, B. W., Macon, Ga.  
Harrold, C. C., Macon, Ga.  
Harrington, F. Y., Macon, Ga.  
Harris, E. C., Byron, Ga.  
Hartley, J. M., Macon, Ga.  
Henderson, D. T., Macon, Ga.  
Hall, T. H., Macon, Ga.  
Hinton, C. C., Macon, Ga.  
Holmes, J. P., Macon, Ga.  
Hurley, T. A., Macon, Ga.  
Jackson, Max, Macon, Ga.  
Jemison, A. B., Macon, Ga.  
Johnson, J. E. L., Roberta, Ga.  
Johnston, F. C., Macon, Ga.  
Kennon, C. L., Macon, Ga.  
King, J. L., Macon, Ga.  
Kay, J. B., Byron, Ga.  
Key, E. P., Macon, Ga.  
Kemp, A. P., Macon, Ga.  
Keen, O. F., Macon, Ga.  
Little, W. J., Macon, Ga.  
Martin, J. W., Macon, Ga.  
Massenburg, G. Y., Macon, Ga.  
Merriwether, W. W., Macon, Ga.  
Miller, G. T., Macon, Ga.  
Mitchell, F. B., Macon, Ga.

Moore, K. P., (honorary) Macon, Georgia.

Moore, J. M., Macon, Ga.  
Mobley, W. E., Macon, Ga.  
Moses, Harry, Macon, Ga.  
McAfee, J. C., Macon, Ga.  
McAfee, L. C., Macon, Ga.  
McGill, R. E., Lizella, Ga.  
Newman, J. P., Macon, Ga.  
Newman, W. A., Macon, Ga.  
Pate, J. C., Macon, Ga.  
Palmer, S. B., Macon, Ga.  
Peavy, H. J., Macon, Ga.  
Pumpelly, W. C., Macon, Ga.  
Pennington, C. L., Macon, Ga.  
Respass, H., Macon, Ga.  
Richardson, C. H. Jr., Macon, Ga.  
Ross, J. T., Macon, Ga.  
Rozar, A. R., Macon, Ga.  
Rogers, T. E., Macon, Ga.  
Rushin, W. P., Macon, Ga.  
Sigman, J. M., Macon, Ga.  
Selden, J. A., Macon, Ga.  
Stovall, R. M., Macon, Ga.  
Stapler, M. M., Macon, Ga.  
Spivey, O. S., Macon, Ga.  
Ward, J. B., Macon, Ga.  
Walker, T. D., Jr., Macon, Ga.  
Walker, C. H., Macon, Ga.  
Walker, D. D., Macon, Ga.  
Weaver, O. H., Macon, Ga.  
Webb, F. L., Macon, Ga.  
White, W. S., Fort Valley, Ga.  
Winship, Herring, Macon, Ga.  
Wright, J. E., Macon, Ga.

#### BLUE RIDGE SOCIETY

##### Officers.

President -----Cox, C. G.  
Vice-President ----Prince, E. L.  
Secretary -----Crawford, C. B.  
Delegate -----Tankersley, J. S.

##### Members.

Cox, C. G., Ellijay, Ga.  
Crawford, C. B., Blue Ridge, Ga.  
Chastain, J. B., Blue Ridge, Ga.  
Daves, J. M., Blue Ridge, Ga.  
Goss, N. C., Ellijay, Ga.  
Prince, E. L., Morganton, Ga.  
Prince, A. L., Mineral Bluff, Ga.  
Tankersley, J. S., Ellijay, Ga.  
Wellborn, C. J., Blairsville, Ga.

#### BROOKS COUNTY

##### Officers.

President ----- Smith, L. A.  
Secretary, -----Smith, A. J.  
Delegate -----McMichael, J. R.

##### Members.

Gaulden, S. S., Quitman, Ga.  
Jelks, E. L., Quitman, Ga.  
McMichael, J. R., Quitman, Ga.  
Smith, A. J., Quitman, Ga.  
Smith, L. A., Quitman, Ga.  
Ward, J. A., Quitman, Ga.

#### BULLOCH COUNTY AND CANDLER COUNTY

##### Officers.

President ----- Cone, R. L.  
Vice-President ----Temples, A.  
Secretary -----Whiteside, J. H.  
Delegate -----Floyd, F. F.  
Alt. ----- Whiteside, J. H.

##### Members.

Cone, R. L., Statesboro, Ga.  
Deal, B. A., Statesboro, Ga.  
Floyd, F. F., Statesboro, Ga.  
Mooney, A. J., Statesboro, Ga.  
McElveen, J. M., Brooklet, Ga.  
Simmons, W. E., Metter, Ga.  
Temples, A., Statesboro, Ga.  
Watkins, E. C., Brooklet, Ga.  
Whiteside, J. H., Statesboro, Ga.

#### BURKE COUNTY

##### Officers.

President ----- Cox, C. H.  
Vice-President ----Miller, R. L.  
Secretary -----Macauley, H. A.  
Delegate -----Byrne, J. M.

##### Members.

Bent, H. F., Midville, Ga.  
Byrne, J. M., Waynesboro, Ga.  
Cox, C. H., Waynesboro, Ga.  
Cook, J. M., Sardis, Ga.  
Fulcher, M. O., Waynesboro, Ga.  
Kelley, W. H., Waynesboro, Ga.  
Lewis, J. B., Waynesboro, Ga.  
Macauley, H. A., Waynesboro, Ga.  
McCarver, W. C., Vidette, Ga.  
Miller, R. L., Waynesboro, Ga.  
Morton, H. J., Waynesboro, Ga.  
Smith, B. H., Keysville, Ga.

#### BUTTS COUNTY

##### Officers.

President ----- Copeland, H. W.  
Vice-President -----Akin, B. F.  
Secretary -----Howell, O. B.  
Delegate -----White, A. F.

##### Members.

Akin, B. F., Jenkinsburg, Ga.  
Byron, J. L., Jackson, Ga.  
Copeland, H. W., Jackson, Ga.

Harper, J. W., Jenkinsburg, Ga.  
Howell, O. B., Jackson, Ga.  
Steele, W. H., Jackson, Ga.  
R. F. D. No. 4.  
White, A. F., Flovilla, Ga.

#### CARROLL COUNTY

##### Officers.

President -----Goodwin, H. J.  
Vice-President -----Fitts, C. C.  
Secretary -----Askew, H. H.  
Delegate -----Roberts, O. W.

##### Members.

Askew, H. H., Carrollton, Ga.  
Barker, H. L., Carrollton, Ga.  
Baskin, C. L., Temple, Ga.  
Burnett, G. W., Whitesburg, Ga.  
Fitts, C. C., Carrollton, Ga.  
Goodwin, H. J., Carrollton, Ga.  
Griffin, Claud, Carrollton, Ga.  
Hammond, C. W., Roopville, Ga.  
King, L. P., Carrollton, Ga.  
Kirby, E. C., Carrollton, Ga., R. 8.  
Lovvorn, J. L., Bowdon, Ga.  
Martin, F. A., Bowdon, Ga.  
Martin, Jas. A., Mt. Zion, Ga.  
Powell, B. C., Villa Rica, Ga.  
Reese, D. S., Carrollton, Ga.  
Reeves, T. W., Carrollton, Ga.  
Roberts, O. W., Carrollton, Ga.  
Scales, S. F., Carrollton, Ga. R. 1.  
Spruell, T. M., Temple, Ga.  
West, Grover, Roopville, Ga.  
Wilson, L. E., Bowdon, Ga.

#### CHATHAM COUNTY

##### Officers.

President -----Lee, Lawrence.  
Vice-President --Righton, H. Y.  
Secretary -----Bishop, E. L.  
Delegate -----Daniel, J. W.  
Alt. -----Daney, W. R.

##### Members.

Adams, H. R., 411 S. B. & T.  
Bldg., Savannah, Ga.  
Baker, J. O., 126 E. Oglethorpe  
Ave., Savannah, Ga.  
Bassett, V. H., City Hall, Savan-  
nah, Ga.  
Barrow, Craig, 17 McDonough St.,  
Savannah, Ga.  
Blake, H. H., 410 Abercorn St.,  
Savannah, Ga.  
Bishop, E. L., Savannah, Ga.  
Bray, S. F., DeRenne, Apt. Sa-  
vannah, Ga.  
Cole, W. A., Park View San.,  
Savannah, Ga.



Corry, J. E., 20 W. Liberty St., Savannah, Ga.  
 Compton, H. T., 220 E. Oglethorpe Ave., Savannah, Ga.  
 Corbin, M. X., 117 W. Liberty St., Savannah, Ga.  
 Corson, E. R., 10 W. Jones St., Savannah, Ga.  
 Crawford, W. B., 14 E. Taylor St., Savannah, Ga.  
 Dancy, W. R., 102 W. Jones St., Savannah, Ga.  
 Daniel, J. W., 1216 Drayton St., Savannah, Ga.  
 DeLoach, L. A., 301 W. 40th St., Savannah, Ga.  
 Drane, Robert, DeRenne Apt., Savannah, Ga.  
 Decaradens, St. J. R., DeRenne Apt., Savannah, Ga.  
 Exley, H. T., 401 S. B. & T. Bldg., Savannah, Ga.  
 Faggart, G. H., 16 W. Oglethorpe Ave., Savannah, Ga.  
 Heshe, H. W., 112 E. Jones St., Savannah, Ga.  
 Hires, J. L., 8 E. Liberty St., Savannah, Ga.  
 Iseman, E., 11 Jones St., E., Savannah, Ga.  
 Jones, Jabez, DeRenne Apt., Savannah, Ga.  
 Lang, G. H., 204 E. Liberty St., Savannah, Ga.  
 Lattimore, R., 13 E. Jones, St., Savannah, Ga.  
 Lee, Lawrence, DeRenne Apt., Savannah, Ga.  
 Norton, W. A., 105 Oglethorpe Ave., Savannah, Ga.  
 Martin, H. H., 247 Bull St., Savannah, Ga.  
 Meldrim, C. H., 212 W. 32nd St., Savannah, Ga.  
 McGee, H. H., 7 W. Gordon St., Savannah, Ga.  
 Myers, W. H., 402 Drayton St., Savannah, Ga.  
 Osborne, E. S., 19 E. Jones St., Savannah, Ga.  
 Oneil, J. C., 247 Bull St., Savannah, Ga.  
 Righton, H. Y., 101 E. Waldburg St., Savannah, Ga.  
 Train, J. K., 1107 Bull St., Savannah, Ga.  
 Thomas, M. R., 202 E. Oglethorpe Ave., Savannah, Ga.  
 Usher, Chas., 3 W. Liberty St., Savannah, Ga.

Usher, J. A., 1 E. Henry St., Savannah, Ga.  
 Usher, S., 408 Oglethorpe W., Savannah, Ga.  
 White, G. R., 248 Bull St., Savannah, Ga.  
 Williams, L. W., De Soto Hotel, Savannah, Ga.  
 Waring, A. J., DeRenne Apt., Savannah, Ga.  
 Waring, T. P., DeRenne Apt., Savannah, Ga.

### CHATTOOGA COUNTY

#### Officers.

President -----Wood, M. W.  
 Vice-President -----Jones, R. D.  
 Secretary -----Medlin, W. B.

#### Members.

Brown, H. D., Lyerly, Ga.  
 Bryant, W. J., Summerville, Ga.  
 Jones, R. D., Summerville, Ga.  
 Jennings, E. M., Menlo, Ga.  
 Medlin, W. B., Summerville, Ga.  
 Shamblin, B. F., Lyerly, Ga.  
 Wood, M. B., Menlo, Ga.

### CHEROKEE COUNTY

#### Officers.

President -----Boring, J. R.  
 Vice-President -----Coker, Newton J.  
 Secretary -----Brooke, George C.  
 Delegate -----Boring, James R.  
 Alt. -----Coker, Newton J.

#### Members.

Bates, J. M., Canton, Ga.  
 Boring, James R., Canton, Ga.  
 Brooke, Geo. C., Canton, Ga.  
 Coker, Newton, J., Canton, Ga.  
 Harbin, S. R., Canton, Ga.  
 Moore, R. M., Waleska, Ga.  
 Pettit, J. T., Orange, Ga.  
 Rhodes, W. O., Canton, Ga.  
 Vansant, T. J., Woodstock, Ga.  
 Vansant, J. P., Woodstock, Ga.

### CLARK COUNTY

#### Officers.

President -----Goss, I. H.  
 Vice President -----Reynolds, H. I.  
 Secretary -----Gerdine, Linton  
 Delegate -----McKinney, J. C.  
 Alt. -----Cabaniss, W. H.

#### Members.

Applewhite, J. D., Athens, Ga.  
 Birdsong, H. W., Athens, Ga.  
 Cabaniss, W. H., Athens, Ga.  
 Canning, G. T., Athens, Ga.  
 Chandler, B. B., Athens, Ga.

Carlton, W. A., Athens, Ga.  
 Coffee, H. D., Athens, Ga.  
 Coil, F. W., Winterville, Ga.  
 Dupree, D. H., Athens, Ga.  
 Fullilove, H. M., Athens, Ga.  
 Gerdine, Linton, Athens, Ga.  
 Goss, I. H., Athens, Ga.  
 Goss, R. M., Athens, Ga.  
 Holiday, J. C., Athens, Ga.  
 Holliday, A. C., Athens, Ga.  
 Holliday, P. L., Athens, Ga.  
 Hunnicutt, J. A., Jr., Athens, Ga.  
 Matthews, M. F., Athens, Ga.  
 Middlebrooks, C. O., Athens, Ga.  
 McKinney, J. C., Athens, Ga.  
 Paton, A. B., Athens, Ga.  
 Proctor, J. P., Athens, Ga.  
 Rayle, A. A., Athens, Ga.  
 Reynolds, H. I., Athens, Ga.  
 Smith, S. S., Athens, Ga.  
 Sisk, C. N., Athens, Ga.  
 West, A. L., Athens, Ga.

### CLAYTON-FAYETTE COUNTY

#### Officers.

President -----Malone, O. T.  
 Vice-President -----Mullins, G. R.  
 Secretary -----Kemper, H. D.

#### Members.

Cannon, T. C., Jonesboro, Ga.  
 Henry, J. Z., Ellenwood, Ga.  
 Kemper, H. D., Jonesboro, Ga.  
 Lester, J. A., Fayetteville, Ga.  
 Malone, O. T., Fayetteville, Ga.  
 Mullins, G. R., Fayetteville, Ga.  
 Robae, J. L., Jonesboro, Ga.  
 Wallis, J. R., Lovejoy, Ga.  
 Wallis, G. W., Fayetteville, Ga.

### COBB COUNTY

#### Officers.

President -----Benson, W. E.  
 Vice-President -----Humphries, Will.  
 Secretary -----Blair, L. L.  
 Delegate -----Bailey, E. M.

#### Members.

Bailey, E. M., Acworth, Ga.  
 Blair, L. L., Marietta, Ga.  
 Benson, W. E., Marietta, Ga.  
 Humphries, Will., Acworth, Ga.  
 Kemp, W. M., Marietta, Ga.  
 Lindley, F. P., Powder Springs, Georgia.  
 Middlebrooks, J. D., Powder Springs, Ga.  
 Mims, Frank, Marietta, Ga.  
 Nolan, C. T., Marietta, Ga.  
 Pace, W. T., Smyrna, Ga.  
 Perkinson, W. H., Marietta, Ga.  
 Todd, R. W., Marietta, Ga.

**COFFEE COUNTY****Officers.**

Secretary -----Whelchel, H. C.

**Members.**

Clark, T. H., Douglas, Ga.  
Coleman, A. S. M., Douglas, Ga.  
Hall, W. L., Nicholls, Ga.  
Meeks, D. H., Nicholls, Ga.  
Smith, J. R., Douglas, Ga.  
Whelchel, H. C., Douglas, Ga.

**COLQUITT COUNTY****Officers.**

President -----Brannen, C. C.  
Vice-President ----Slocum, C. B.  
Secretary -----Lauson, E. L.  
Delegate -----Massey, W. W.  
Alt. -----Lanier, J. E.

**Members.**

Bennett, W. L., Moultrie, Ga.  
Brannen, C. C., Moultrie, Ga.  
Daniels, Everett, Moultrie, Ga.  
Hitchcock, C. M., Moultrie, Ga.  
Lanier, J. E., Moultrie, Ga.  
Lauson, E. L., Moultrie, Ga.  
Neusom, E. T., Moultrie, Ga.  
Slocum, C. B., Moultrie, Ga.  
Stuart, M. H., Moultrie, Ga.  
Summerlin, J. A., Hartfield, Ga.

**COWETA COUNTY****Officers.**

President -----Bailey, T. S.  
Vice-President ----Barge, J. L.  
Secretary -----Lyday, W. H.  
Delegate -----Haney, D. A.

**Members.**

Bailey, T. S., Newnan, Ga.  
Barge, A. A., Newnan, Ga.  
Barge, J. L., Newnan, Ga.  
Davis, T. B., Newnan, Ga.  
Farmer, M. H., Newnan, Ga.  
Haney, D. A., Newnan, Ga.  
Lyday, W. H., Newnan, Ga.  
Peniston, Paul, Newnan, Ga.  
Tanner, W. H., Newnan, Ga.  
Turner, W. A., Newnan, Ga.  
Woodruff, W. L., Newnan, Ga.  
Young, A Quigg, Newnan, Ga.

**CRISP COUNTY****Officers.**

President -----Ward, J. A.  
Vice-President ----Miller, W. A.  
Secretary -----McKenzie, O. G.  
Delegate -----McArthur, T. J.  
Alt. -----Bradley, T. E.

**Members.**

Bradley, T. E., Cordele, Ga.  
Cox, Tip, Arabi, Ga.  
Daniel, B., Cordele, Ga.  
Dorminy, J. N., Seville, Ga.  
Edwards, W. E., Cordele, Ga.  
Flournoy, H. C., Warwick, Ga.  
Harvard, V. O., Arabi, Ga.  
Heyward, A. R., Warwick, Ga.  
Hunt, C. M. D., Cordele, Ga.  
Miller, W. A., Arabi, Ga.  
McKenzie, O. G., Cordele, Ga.  
McKenzie, J. S., Cordele, Ga.  
McArthur, T. J., Cordele, Ga.  
Smith, M. R., Cordele, Ga.  
Ware, Ford, Cordele, Ga.  
Ward, J. A., Cordele, Ga.  
Whelchel, A. J., Cordele, Ga.  
Williams, P. L., Cordele, Ga.  
Williams, L. E., Cordele, Ga.  
Williams, S. F., Cordele, Ga.  
Wallace, F. R., Cordele, Ga.

**DECATUR-SEMINOLE  
COUNTIES****Officers.**

President -----Chason, Gordon.  
Vice-President ----Spooner, J. I.  
Secretary -----Lewis, P. M.  
Delegate -----Wheat, R. F.

**Members.**

Alford, A. E. B., Bainbridge, Ga.  
Bridges, E. C., Donalsonville, Ga.  
Chason, Gordon, Bainbridge, Ga.  
Chason, Thomas, Donalsonville, Georgia.  
Christophine, S. A. V., Attapul-  
gus, Ga.  
Davis, E. S., Climax, Ga.  
Griffith, W. W., Bainbridge, Ga.  
Herring, F. C., Amsterdam, Ga.  
Lewis, P. M., Bainbridge, Ga.  
McCorkle, F. W., Bainbridge, Ga.  
Spooner, J. I., Donalsonville, Ga.  
Toole, J. E., Bainbridge, Ga.  
Parks, F. W., Attapulgus, Ga.  
Willis, L. W., Bainbridge, Ga.  
Wilkinson, W. L., Bainbridge, Ga.  
Wheat, R. F., Bainbridge, Ga.

**DOOLY COUNTY****Officers.**

President -----Daves, V. C.  
Vice-President -----Lee, J. L.  
Secretary -----Williams, F. E.

**Members.**

Bivins, T. F., Vienna, Ga.  
Daves, V. C., Vienna, Ga.  
Lee, J. L., Pinehurst, Ga.  
Mobley, H. A., Vienna, Ga.  
Rose, J. R., Unadilla, Ga.  
Williams, F. E., Vienna, Ga.

**DOUGHERTY COUNTY****Officers.**

President -----Cook, W. S.  
Vice-President -----Irvin, I. W.  
Secretary -----Lott, Y. C.  
Delegate -----Lott, Y. C.  
Alt. -----Davis, W. L.

**Members.**

Barnett, J. M., Albany, Ga.  
Benson, N. E., Albany, Ga.  
Cook, W. S., Albany, Ga.  
Davis, W. L., Albany, Ga.  
Hilsman, A. H., Albany, Ga.  
Irvin, I. W., Albany, Ga.  
Keaton, J. C., Albany, Ga.  
Lott, Y. C., Albany, Ga.  
Newell, C. E., Albany, Ga.  
Pearson, R. J., Albany, Ga.  
Redfearn, J. A., Albany, Ga.  
Robinson, Hugo, Albany, Ga.  
Sapp, E. F., Albany, Ga.  
Wood, A. W., Albany, Ga.

**ELBERT COUNTY****Officers.**

President -----Thompson, D. N.  
Vice-President ----Johnson, J. E.  
Secretary -----Mattox, B. B.  
Delegate -----Matthews, W. J.  
Alt. -----Smith, A. C.

**Members.**

Alexander, C. L., Elberton, Ga.,  
R. F. D.  
Bailey, D. V., Elberton, Ga.  
Bond, W. L., Dewey Rose, Ga.  
Eberhardt, L. P., Elberton, Ga.  
Gaines, T. H., Elberton, Ga.,  
R. F. D.  
Johnson, A. S., Elberton, Ga.  
Johnson, J. E., Elberton, Ga.  
Matthews, W. J., Elberton, Ga.  
Mattox, B. B., Elberton, Ga.  
Smith, A. C., Elberton, Ga.  
Stovall, A. S. J., Elberton, Ga.  
Thompson D. N. Elberton, Ga.  
Walker, O. B., Bowman, Ga.  
Ward, G. A., Elberton, Ga.  
R. F. D. No. 1.

**EMANUEL COUNTY****Officers.**

President -- ----Sample, R. L.  
 Vice-President --Youmans, L. P.  
 Secretary -----Lanier, L. I  
 Delegate -----Franklin, V. E.  
 Alt. -----Bailey, J. D.

**Members.**

Bailey, J. D., Summertown, Ga.  
 Blackburn, T. E., Swainsboro,  
 Georgia.  
 Chandler, J. H., Swainsboro, Ga.  
 Coleman, E. T., Graymont, Ga  
 Durden, J. W., Summit, Ga.  
 English, R. L., Stillmore, Ga.  
 Franklin, R. C., Swainsboro, Ga.  
 Franklin, V. E., Graymont, Ga.  
 Johnson, A. C., Garfield, Ga.  
 Johnson, B. F., Garfield, Ga.  
 Lanier, L. Ivey, Wesley, Ga.  
 Lucas, W. H., Stillmore, Ga.  
 Neinez, J. M., Swainsboro, Ga.  
 Sample, R. L., Summit, Ga.  
 Smith, D. D., Swainsboro, Ga.  
 Smith, G. L., Swainsboro, Ga.  
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 Floyd, W. B., Rome, Ga., Rt. 2.  
 Garrard, J. L., Rome, Ga.  
 Griffin, J. H., Armuchee, Ga.  
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 Harbin, R. M., Rome, Ga.  
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 Lewis, W. H., Rome, Ga.  
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 Methvin, S. R., Lindale, Ga.  
 McArthur, C. H., Curryville, Ga.  
 McCall, J. T., Rome, Ga.  
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 Bldg., Atlanta, Ga.  
 Avery, A., 185 Ivy St., Atlanta,  
 Georgia.  
 Avery, J. C., 185 Ivy St., Atlan-  
 ta, Ga.  
 Aven, C. C., Hurt Bldg., Atlanta,  
 Georgia.  
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 Atlanta, Ga.  
 Ayer, G. D., Hurt Bldg., Atlanta,  
 Georgia.  
 Ayers, A. J., Grady Hospital, At-  
 lanta, Ga.  
 Baggett, L. G., Hurt Bldg., At-  
 lanta, Ga.  
 Baker, L. P., Atl. Natl. Bnk.  
 Bldg., Atlanta, Ga.  
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 lanta, Ga.  
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 Atlanta, Ga.  
 Baird, J. B., Jr., Peters Bldg.,  
 Ballenger, E. G., Healey Bldg.,  
 Atlanta, Ga.  
 Ballenger, W. L., Flatiron Bldg.,  
 Atlanta, Ga.  
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 lanta, Ga.  
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 lanta, Ga.  
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 St., Atlanta, Ga.  
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 lanta, Ga.  
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 Bldg., Atlanta, Ga.  
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 lanta, Ga.  
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 Bldg., Atlanta, Ga.  
 Bivings, W. T., Atl. Natl. Bnk.  
 Bldg., Atlanta, Ga.  
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 Bldg., Atlanta, Ga.  
 Blackman, W. W., 172 Capital  
 Ave., Atlanta, Ga.



- Blanford, W. C., Candler Bldg., Atlanta, Ga.  
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 Blosser, Roy, 224 Myrtle St., Atlanta, Ga.  
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 Boynton, C. E., Candler Bldg., Atlanta, Ga.  
 Bradfield, J. H., 501 S. Pryor St., Atlanta, Ga.  
 Bowcock, H. M., Hurt Bldg., Atlanta, Ga.  
 Britt, C. S., Grady Hospital, Atlanta, Ga.  
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 Brawner, Albert, Grant Bldg., Atlanta, Ga.  
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 Bucknell, Howard, 20 E Linden Ave., Atlanta, Ga.  
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 Bunce, A. H., Healey Bldg., Atlanta, Ga.  
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 Calhoun, F. P., Candler Bldg., Atlanta, Ga.  
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 Clarke, L. B., Peters Building, Atlanta, Ga.  
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- Roberts, J. W., Candler Bldg., Atlanta, Ga.
- Roberts, S. R., 20 Ponce De Leon Ave., Atlanta, Ga.
- Robinson, L. B., 20 Ponce de Leon Ave., Atlanta, Ga.
- Robinson, W. C., Atl. Ntl. Bnk. Bldg., Atlanta, Ga.
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- Sims, M. R., Hurt Bldg., Atlanta, Ga.
- Sinkoe, S. J., Candler Bldg., Atlanta, Ga.
- Smith, Archibald, Flatiron Bldg., Atlanta, Ga.
- Smith, C. A., City Hall, Atlanta, Ga.
- Smith, M. F., 80 White St., Atlanta, Ga.
- Smith, J. R., Aragon Hotel, Atlanta, Ga.
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- Stampa, S., Candler Bldg., Atlanta, Ga.
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- Stephens, R. G., Candler Bldg., Atlanta, Ga.
- Stegall, Paul, 240 1-2 Houston St., Atlanta, Ga.
- Stockard, Cecil, Candler Bldg., Atlanta, Ga.
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- Strickler, C. W., 53 Forrest Ave., Atlanta, Ga.
- Sutton, F. M., 1101 Flatiron Bldg., Atlanta, Ga.
- Swanson, Cosby, Candler Bldg., Atlanta, Ga.
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- Thornton, Lawson, 15 W. Alexander St., Atlanta, Ga.
- Thrash, E. C., Candler Bldg., Atlanta, Ga.
- Toepel, Theo., Forrest Ave., Atlanta, Ga.
- Trimble, G. C., East Point, Ga.
- Tribble, N. O., 5 Hammond St., Atlanta, Ga.
- Turner, J. W., Candler Bldg., Atlanta, Ga.
- Upchurch, W. A., Peters Bldg., Atlanta, Ga.
- Upshaw, C. B., Hurt Bldg., Atlanta, Ga.
- VanderVeer, F. E., Healey Bldg., Atlanta, Ga.
- Van Dyke, A. H., Grant Bldg., Atlanta, Ga.
- Vansant, Claude, Douglasville, Ga.
- Vaughn, C. J., 246 Houston St., Atlanta, Ga.
- Vaughan, H. J., Hurt Bldg., Atlanta, Ga.
- Vermilye, J. H., Connally Bldg., Atlanta, Ga.
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- Vogt, F. A., Davis Fischer San., Atlanta, Ga.
- Wagun, B. H., Hurt Bldg., Atlanta, Ga.
- Waits, C. E., Hurt Bldg., Atlanta, Ga.



Ware, C. E., Grand Bldg., Atlanta, Ga.  
 Ward, C. P., Flatiron Bldg., Atlanta, Ga.  
 Ward, B. H. H., Flatiron Bldg., Atlanta, Ga.  
 Ward, Emmett, Healey Bldg., Atlanta, Ga.  
 Warren, W. C., Atl. Natl. Bnk. Bldg., Atlanta, Ga.  
 Weaver, J. C., Candler Bldg., Atlanta, Ga.  
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 West, C. M., Hurt Bldg., Atlanta, Ga.  
 Westmoreland, W. F., 53 Forrest Ave., Atlanta, Ga.  
 White, J. B., Hurt Bldg., Atlanta, Ga.  
 White, J. C., Atl. Ntl. Bnk. Bldg., Atlanta, Ga.  
 Wilkins, C. A., Hurt Bldg., Atlanta, Ga.  
 Weinkle, B. O., Candler Bldg., Atlanta, Ga.  
 Wood, E. B., Candler Bldg., Atlanta, Ga.  
 Wood, J. A., 632 Candler Bldg., Atlanta, Ga.  
 Williams, B. F., 223 N. Moreland Ave., Atlanta, Ga.  
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 Young, W. W., 78 Forrest Ave., Atlanta, Ga.

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 Fox, R. L., Brunswick, Ga.  
 Greer, C. V., Brunswick, Ga.  
 Harrell, J. P., Brunswick, Ga.  
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**Members.**

Arline, T. J., Cairo, Ga.  
 Brawner, L. E., Cairo, Ga.  
 Clower, Eugene, Cairo, Ga.  
 Harden, J. E., Whigham, Ga.  
 Lindsay, J. A., Cairo, Ga.  
 Lindsay, R. R., Cairo, Ga.  
 Reynolds, A. B., Reno, Ga.  
 Walker, W. A., Cairo, Ga.  
 Warnell, J. B., Cairo, Ga.  
 Wright, J. E., Cairo, Ga.

**HALL COUNTY.****Officers.**

President ----- White, A. D.  
 Vice-President ---- Meeks, W. T.  
 Secretary ----- Cheek, Pratt  
 Delegate ----- Wheelchel, C. D.  
 Alternate ----- Mauldin, J. D.

**Members.**

Bryson, L. R., Gainesville, Ga.  
 Cheek, Pratt, Gainesville, Ga.  
 Downey, J. H., Gainesville, Ga.  
 Gibbs, E. T., Gainesville, Ga.  
 Mauldin, J. D., Gainesville, Ga.  
 Meeks, J. L., Gainesville, Ga.  
 Meeks, W. T., Gainesville, Ga.  
 Rudolph, J. B., Gainesville, Ga.  
 Rudolph, H. L., Gainesville, Ga.  
 Titshaw, H. S., Gainesville, Ga.  
 Wheelchel, C. D., Gainesville, Ga.  
 White, A. D., Gainesville, Ga.

**HARALSON COUNTY.****Officers.**

President ----- Malone, W. H.  
 Vice-President ---- Reid, W. F.  
 Secretary ----- Downey, C. W.

**Members.**

Aderhold, W. A., Bremen, Ga.  
 Cook, H. C., Bremen, Ga.  
 Downey, C. W., Tallapoosa, Ga.  
 Eaves, B. F., Draketown, Ga.  
 Gilmore, E. L., Tallapoosa, Ga.

Hougue, W. L., Draketown, Ga.  
 Johns, L. J., Tallapoosa, Ga.  
 Johns, T. J., Tallapoosa, Ga.  
 Malone, W. H., Tallapoosa, Ga.  
 Newman, W. J., Buchanan, Ga., Rt. 3.  
 Reid, W. F.  
 Sanford, E. F., Buchanan, Ga.  
 Stephens, M. H., Bremen, Ga.

**HART COUNTY.****Officers.**

President ----- McCurry, W. E.  
 Vice-President ---- Harper, G. T.  
 Secretary ----- Clark, G. S.

**Members.**

Barton, D. J., Hartwell, Ga.  
 Clark, G. S., Hartwell, Ga.  
 Gaines, T. R., Hartwell, Ga.  
 Hanie, A. P., Hartwell, Ga.  
 Hailey, W. I., Hartwell, Ga.  
 Hailey, W. H., Hartwell, Ga.  
 Harper, G. T., Dewey, Rose, Ga., Rt. 7.  
 Jenkins, J. C., Hartwell, Ga.  
 Jenkins, J. I., Bowman, Ga., R. F. D.  
 McCurry, W. E., Hartwell, Ga.  
 Meredith, A. O., Hartwell, Ga.  
 Sanders, F. H., Bowersville, Ga.  
 Teasley, B. C., Hartwell, Ga.

**HEARD COUNTY****Officers.**

President ----- Daniel, J. W.  
 Vice-President -- Wortham, A. G.  
 Secretary ---- Amis, T. J., Jr.  
 Delegate ----- Taylor, J. C.

**Members.**

Amis, T. J., Jr., Franklin, Ga.  
 Burgess, P. L., Roopville, Ga.  
 Cook, J. D., Franklin, Ga.  
 Daniel, J. W., Franklin, Ga.  
 Michel, C. M., Franklin, Ga.  
 Taylor, E. J., Franklin, Ga.  
 Taylor, J. L., Franklin, Ga.  
 Taylor, J. C., Glenn, Ga.  
 Vineyard, T. L., Franklin, Ga.  
 Wortham, A. G., Franklin, Ga.  
 Webb, L. B., Hagansville, Ga.

**HENRY COUNTY.****Officers.**

President -- Carmichael, W. W.  
 Vice-President ---- Combs, J. A.  
 Secretary ---- Williams, W. A.

**Members.**

Carmichael, W. W., Hampton, Ga.

Colvin, E. G., Locust Grove, Ga.  
 Combs, J. A., Locust Grove, Ga.  
 Crawford, R. L., Locust Grove,  
 Ga.  
 Ellis, H. C., McDonough, Ga.  
 Sloan, W. P., McDonough, Ga.  
 Smith, J. G., McDonough, Ga.  
 Tye, R. L., McDonough, Ga.  
 Welden, J. B., Hampton, Ga.  
 Williams, W. A., McDonough, Ga.

**IRWIN COUNTY.****Officers.**

Secretary ----- Willis, G. W.

**Members.**

Harper, A., Wray, Ga.  
 Luke, J. C., Ocilla, Ga.  
 Lyon, H. P., Mystic, Ga.  
 McElroy, S. L., Ocilla, Ga.  
 McLeod, R. F., Ocilla, Ga.  
 Whidden, L. L., Ocilla, Ga.  
 Willis, G. W., Ocilla, Ga.

**JACKSON COUNTY.****Officers.**

President ---- Pendergrass, J. B.  
 Vice-President -- Hubbard, F. M.  
 Secretary ----- Bennett, J. C.  
 Delegate ----- Kennedy, W. C.

**Members.**

Allen, L. C., Hoschton, Ga.  
 Allen, M. B., Hoschton, Ga.  
 Bennett, J. C., Jefferson, Ga.  
 Campbell, J. H., Jefferson, Ga.  
 Crow, H. E., Talmo, Ga.  
 Hardman, L. G., Commerce, Ga.  
 Hubbard, F. M., Commerce, Ga.  
 Kennedy, W. C., Talmo, Ga.  
 McDonald, E. M., Jefferson, Ga.  
 Nelms, M. F., Commerce, Ga.  
 Pendergrass, J. B., Jefferson, Ga.  
 Rogers, A. A., Commerce, Ga.  
 Shankle, O. E., Commerce, Ga.  
 Sharp, L. J., Commerce, Ga.  
 Smith, S. J., Jefferson, Ga.  
 Verner, J. C., Commerce, Ga.

**JASPER COUNTY.****Officers.**

President ----- Payne, J. W.  
 Vice-President ---- Cary, R. F.  
 Secretary ----- Davis, J. V.  
 Delegate ----- Belcher, F. S.

**Members.**

Belcher, F. S., Monticello, Ga.  
 Brown, J. A., Shady Dale, Ga.

Bullard, J. H., Machen, Ga.  
 Cary, R. F. ---- Monticello, Ga.  
 Davis, J. V. ---- Monticello, Ga.  
 Payne, J. W., Monticello, Ga.  
 Pittard, L. Y., Monticello, Ga.  
 Ridley, C. L., Hillsboro, Ga.

**JENKINS COUNTY.****Officers.**

President ----- Kirkendol, J. L.  
 Vice-President -- Mulkey, Q. A.  
 Secretary ----- Thompson, C.  
 Delegate ----- Thompson, C.  
 Alternate ----- Perkins, M. E.

**Members.**

Kirkendol, J. L., Millen, Ga.  
 Lane, R. Y., Millen, Ga.  
 Mulkey, Q. A., Millen, Ga.  
 Perkins, M. E., Millen, Ga.  
 Thompson, Cleveland, Millen, Ga.

**JONES COUNTY.****Officers.**

President ----- Riley, J. H.  
 Vice-President ---- Zachry, J. D.  
 Secretary ---- Chambliss, P. R.  
 Delegate ---- Chambliss, P. R.

**Members.**

Chambliss, P. R., Gray, Ga.  
 Riley, J. H., Haddock, Ga.  
 White, B. L., Round Oak, Ga.  
 Zachry, J. D., Bradley, Ga.

**JOHNSON COUNTY.****Officers.**

President ----- Johnson, S. M.  
 Vice-President -- Bedingfield, P. B.  
 Secretary ---- Harris, R. Lamar.  
 Delegate ----- Brantley, J. G.  
 Alternate ----- T. S. Page.

**Members.**

Bedingfield, P. B., Wrightsville,  
 Ga.  
 Brantley, J. G., Wrightsville,  
 Ga.  
 Brinson, R. E., Wrightsville, Ga.  
 Dent, J. R., Wrightsville, Ga.  
 Harris, T. L., Wrightsville, Ga.  
 Harris, R. L., Wrightsville, Ga.  
 Harrison, D. C., Kite, Ga.  
 Johnson, S. M., Wrightsville, Ga.  
 Meeks, J. A., Kite, Ga.  
 Page, T. S., Wrightsville, Ga.

**LAMAR COUNTY.****Officers.**

President ---- Barron, J. M. F.

Vice-President ---- Willis, C. H.  
 Secretary ---- Anderson, Jno. M.  
 Delegate ----- Suggs, C. E.  
 Alternate ----- Cochran, M. F.

**Members.**

Anderson, J. M., Barnesville, Ga.  
 Barron, J. M. F., Milner, Ga., R. 2.  
 Cochran, M. F., Barnesville, Ga.  
 Corry, J. A., Barnesville, Ga.  
 Pritchett, D. W., Barnesville, Ga.  
 Rogers, J. M., Barnesville, Ga.  
 Suggs, C. E., Barnesville, Ga.  
 Willis, C. H., Barnesville, Ga.

**LAURENS COUNTY.****Officers.**

President ----- Barton, J. J.  
 Vice-President ---- Hodges, G. A.  
 Secretary -- Blackshear, T. J., Jr.  
 Delegate ---- Edmundson, J. W.  
 Alternate ----- Chappell, R. J.

**Members.**

Barton, J. J., Dublin, Ga.  
 Blackshear, T. J., Jr., Dublin,  
 Ga.  
 Brigham, W. R., Dublin, Ga.  
 Chappell, R. J., Dudley, Ga.  
 Claxton, E. B., Dublin, Ga.  
 Coleman, A. T., Dublin, Ga.  
 Edmundson, J. W., Dublin, Ga.  
 Hall, T. H., (honorary), Dublin,  
 Ga.  
 Hodges, G. A., Dublin, Ga.  
 Massey, W. F., Chester, Ga.  
 Moore, J. H., Dublin, Ga.  
 New, J. E., Dexter, Ga.  
 Parkerson, I. J., Cadwell, Ga.  
 Shellenut, W. C., Montrose, Ga.  
 Thompson, W. C., Dublin, Ga.  
 Walker, Sidney, Dublin, Ga.  
 Weddington, J. L., Dublin, Ga.

**LOUNDES COUNTY.****Officers.**

President ----- Smisson, R. C.  
 Vice-President -- Pennington, T. E.  
 Secretary ----- Smith, T. H.  
 Delegate ----- Smith, J. M.  
 Alternate ----- Griffin, A.

**Members.**

Allen, G. O., Fargo, Ga.  
 Bird, Frank, Valdosta, Ga.  
 Freeman, D. W., Valdosta, Ga.  
 Griffin, A., Valdosta, Ga.  
 Little, A. G., Valdosta, Ga.  
 Mixson, J. F., Valdosta, Ga.  
 Pennington, T. E., Naylor, Ga.  
 Pennington, J. W., Howell, Ga.  
 Prescott, J. P., Lake Park, Ga.

Quillian, E. P., Clyattville, Ga.  
 Smisson, R. C., Valdosta, Ga.  
 Smith, J. C., Valdosta, Ga.  
 Smith, J. M., Valdosta, Ga.  
 Smith, T. H., Valdosta, Ga.

#### MACON-TAYLOR COUNTY.

##### Officers.

President -----Mullino, F. M.  
 Vice-President -- Fickling, C. F.  
 Secretary ---- Montgomery, R. C.  
 Delegate ----- Mangham, J. E.  
 Alternate ---- Richardson, C. H.

##### Members.

Bryan, S. H., Reynolds, Ga.  
 Derrick, H. C., Oglethorpe, Ga.  
 Fickling, C. F., Butler, Ga.  
 Greer, C. A., Oglethorpe, Ga.  
 Gregory, J. M., Montezuma, Ga.  
 Mangham, J. E., Reynolds, Ga.  
 Montgomery, R. C., Butler, Ga.  
 Mitchell, C. M., Montezuma, Ga.  
 Mullino, F. M., Montezuma, Ga.  
 Richardson, C. H., Montezuma, Ga.

#### MADISON COUNTY.

##### Officers.

President ----- Roper, L. E.  
 Vice-President--Westbrook, R. J.  
 Secretary ----- Baker, J. L.  
 Delegate ----- Wallace, J. W.

##### Members.

Banister, H. G., Ila, Ga.  
 Baker, J. L., Carlton, Ga.  
 Roper, L. E., Comer, Ga.  
 Shepherd, J. E., Oyster Bay, N.Y.  
 Westbrook, R. J., Ila, Ga.  
 Wallace, J. W., Commerce, Ga.,  
 R. F. D.

#### McDUFFIE COUNTY.

##### Officers.

President ---- Gibson, Sterling  
 Vice-President ---- Story, Z. M.  
 Secretary ----- Riley, B. F., Jr.  
 Delegate ----- Gibson, W. A.  
 Alternate ----- Freeman, Wm.

##### Members.

Freeman, William, Harlem, Ga.  
 Gibson, Sterling, Thomson, Ga.  
 Gibson, W. A., Thomson, Ga.  
 Riley, B. F., Jr., Thomson, Ga.  
 Story, Z. M. Thomson, Ga.

#### MERIWETHER COUNTY.

##### Officers.

President -----Johnson, J. A.  
 Vice-President ---- Dixon, J. L.  
 Secretary ----- Norman, Frank  
 Delegate ----- Bennett, V. H.

##### Members.

Bennett, V. H., Gay, Ga.  
 Brock, B. H., Greenville, Ga.  
 Dixon, J. L., Woodbury, Ga.  
 Gilbert, R. B., Greenville, Ga.  
 Johnson, J. A., Manchester, Ga.  
 Lipscomb, H. R., Manchester Ga.  
 Norman, F. P., Greenville, Ga.  
 Terrell, E. B., care Hotel Monte-  
 leone, New Orleans, La.  
 Tennant, W. T., Jr., Manchester,  
 Ga.

#### MITCHELL COUNTY.

##### Officers.

President ----- Brown, J. L.  
 Vice-President -- Clements, J. R.  
 Secretary ----- Hill, Roy.  
 Delegate ----- Spence, J. M.  
 Alternate ----- Hill, Roy.

##### Members.

Akridge, H. L., Sale City, Ga.  
 Beason, Louis, Sale City, Ga.  
 Belcher, D. P., Pelham, Ga.  
 Brown, J. L., Camilla, Ga.  
 Bush, O. B., Pelham, Ga.  
 Carreker, J. P., Cotton, Ga.  
 Clements, J. R., Pelham, Ga.  
 Garrett, J. A., Baconton, Ga.  
 Hill, Roy, Pelham, Ga.  
 Hill, W. S., Pelham, Ga.  
 Hargrove, A. S., Pelham, Ga.  
 Lewis, F. L., Camilla, Ga.  
 Rainey, C. O., Camilla, Ga.  
 Roles, C. L., Camilla, Ga.  
 Spence, J. M., Camilla, Ga.  
 Stevens, A. T., Sale City, Ga.  
 Stevenson, C. A., Camilla, Ga.  
 Williams, B., Pelham, Ga.

#### MONROE COUNTY.

##### Officers.

Secretary ----- Smith, W. J.

##### Members.

Alexander, G. L., Forsyth, Ga.  
 Elrod, J. O., Forsyth, Ga.  
 Goolsby, R. C., Forsyth, Ga.  
 Goolsby, Cullen, Forsyth, Ga.  
 Ponder, W. P. (honorary), For-  
 syth, Ga.  
 Smith, B. F., Forsyth, Ga., Rt. 1.  
 Smith, W. J., Juliette, Ga.

Wright, J. J. C., Culloden, Ga.  
 Williams, G. L., Forsyth, Ga.

#### MONTGOMERY COUNTY.

##### Officers.

President ----- Dees, J. H.  
 Secretary ----- Hunt, J. E.  
 Delegate ----- Palmer, J. W.

##### Members.

Dees, J. H., Alston, Ga.  
 Palmer, J. W., Ailey, Ga.  
 Hunt, J. E., Mt. Vernon, Ga.

#### MORGAN COUNTY

##### Officers.

President -----Bell, A. K.  
 Vice-President ----Prior, F. M.  
 Secretary ---- Nicholson, J. H.  
 Delegate -----Bell, A. K.  
 Alt. -----Gambrell, G. C.

##### Members.

Adams, W. E., (honorary) Madi-  
 son, Ga.  
 Bell, A. K., Madison, Ga.  
 Carter, D. M., Madison, Ga.  
 Fambrough, W. M., Bostwick, Ga.  
 Gambrell, G. C., Rutledge, Ga.  
 McGeary, W. C., Madison, Ga.  
 Nicholson, J. H., Madison, Ga.  
 Prior, F. M., Apalachee, Ga.  
 Troutt, J. H., Madison, Ga.

#### MUSCOGEE COUNTY

##### Officers.

President -----Dexter, C. A.  
 Vice-President --Wooldridge, J. C.  
 Secretary -----Jordan, W. P.  
 Delegate -----Peacock, C. A.

##### Members.

Anderson, J. M., Columbus, Ga.  
 Baird, J. M., Columbus, Ga.  
 Baker, E. L., Columbus, Ga.  
 Brooks, R. L., Columbus, Ga.  
 Blandford, M. H., Columbus, Ga.  
 Campbell, W. H., Columbus, Ga.  
 Cook, W. L., Columbus, Ga.  
 Cosby, F. L., Jr., Columbus, Ga.  
 Darby, J. I., Columbus, Ga.  
 Delamar, J. A., Columbus, Ga.  
 Desportes, W. L., Columbus, Ga.  
 Dexter, C. A., Columbus, Ga.  
 Farley, W. E., Columbus, Ga.  
 Gautier, W. F., Columbus, Ga.  
 Jordan, W. P., Columbus, Ga.  
 Johnson, C. D., Columbus, Ga.  
 Johnson, J. H., Columbus, Ga.  
 Johnson, R. F., Columbus, Ga.



Jameson, B. B., Columbus, Ga.  
McDuffie, J. H., Sr., Columbus,  
Georgia.

Mehaffey, J. N., Columbus, Ga.  
Mitchell, T. E., Columbus, Ga.  
Moncrief J. T. Columbus, Ga.  
Monroe, H. S., Columbus, Ga.  
Moses, Alice, Columbus, Ga.  
Murray, G. S., Columbus, Ga.  
Odom, F. J., Columbus, Ga.  
Peacock, C. A., Columbus, Ga.  
Tatum, P. A., Columbus, Ga.  
Thrash, J. A., Columbus, Ga.  
Whitehead, W. F., Columbus, Ga.  
Wooldridge, J. C., Columbus, Ga.  
Youmans, J. R., Columbus, Ga.  
Young, S. E., Midland, Ga.

### NEWTON COUNTY

#### Officers.

Secretary -----Travis, W. D.

#### Members.

Loveless, J. C., Porterdale, Ga.  
Sams, J. R., Covington, Ga., Rt. 8.  
Travis, W. D., Covington, Ga.  
Wates, S. L., Covington, Ga.

### OCMULGEE SOCIETY

(Bleckley, Dodge, and Pulaski  
Counties)

#### Officers.

President -----Whipple, R. L.  
Vice-President ----Herman, J. D.  
Secretary -----Pirkle, W. H.  
Delegate -----Wall, J. C.  
Alt. -----Smith, A. A.

#### Members.

Burns, A. B., Hawkinsville, Ga.  
Brown, E. C., Hawkinsville, Ga.  
Burch, J. A., Eastman, Ga.  
Collum, O. F., Chauncey, Ga.  
Hendricks, J. H., Hawkinsville,  
Georgia.  
Herman, F. H., Eastman, Ga.  
Herman, J. D., Eastman, Ga.  
Mathews, W. A., Hawkinsville,  
Georgia.  
Mathews, J. L., Hawkinsville, Ga.  
Pirkle, W. H., Cochran, Ga.  
Smith, A. A., Hawkinsville, Ga.  
Smith, J. M., Cochran, Ga.  
Stone, J. J., Hawkinsville, Ga.  
Wall, J. Cox, Eastman, Ga.  
Whipple, R. L., Cochran, Ga.  
Williams, W. C., Cochran, Ga.  
Wilkins, A. L., Eastman, Ga.

### PIKE COUNTY

#### Officers.

President -----Head, M. M.

#### Members.

Beauchamp, J. C., Williamson,  
Georgia.  
Grubbs, J. H., Moleua, Ga.  
Graves, J. R., Zebulon, Ga.  
Head, D. L., Concord, Ga.  
Head, M. M., Zebulon, Ga.  
Mallory, R. A., Concord, Ga.

### POLK COUNTY

#### Officers.

President ----Richardson, E. H.  
Vice-President ---Whitley, S. L.  
Secretary -----Tison, W. W.  
Delegate ----Richardson, E. H.  
Alt. -----Cooper, J. J.

#### Members.

England, W. G., Cedartown, Ga.  
Cooper, J. J., Cedartown, Ga.  
Good, J. W., Cedartown, Ga.  
Hall, H. M., Cedartown, Ga.  
Pennington, J. E., Eson Hill, Ga.  
Richardson, E. H., Cedartown, Ga.  
Tison, W. W., Cedartown, Ga.  
Whitley, S. L., Cedartown, Ga.  
Wood, C. V., Cedartown, Ga.

### PUTMAN COUNTY

#### Officers.

President ----Taliaferro, V. H.  
Vice-President ---Griffith, E. F.  
Secretary -----Clark, S. A.  
Delegate -----Taliaferro, V. H.

#### Members.

Clark, S. A., Eatonton, Ga.  
Griffith, E. F., Eatonton, Ga.  
Ledbetter, John, Eatonton, Ga.  
Taliaferro, V. H., Eatouton, Ga.  
Walker, E. Y., Williard, Ga.

### RANDOLPH COUNTY

#### Officers.

President -----McCurdy, E. C.  
Vice-President ----Crook, W. W.  
Secretary -----Moore, G. Y.  
Delegate -----Martin, F. M.  
Alt. -----Patterson, F. D.

#### Members.

Crook, W. W., Cuthbert, Ga.  
Cary, Loren, Georgetown, Ga.  
Harper, T. F., Coleman, Ga.  
Ingram, H. R., Coleman, Ga.  
Martin, F. M., Cuthbert, Ga.

Moore, G. Y., Cuthbert, Ga.  
McCurdy, E. C., Shellman, Ga.  
Patterson, F. D., Cuthbert, Ga.  
Patterson, J. C., Cuthbert, Ga.  
Rogers, F. S., Coleman, Ga.  
Rogers, W. T., Coleman, Ga.

### RICHMOND COUNTY

#### Officers.

President -----Rhodes, R. L.  
Vice-President --Coleman, T. D.  
Secretary -----Akerman, Joseph  
Delegate -----Crane, Chas. W.  
Alt. -----Murphy, E. E.

#### Members.

Armstrong, R. M., Masonic Bldg.,  
Augusta, Ga.  
Akerman, Jos., University Hosp.,  
Augusta, Ga.  
Baker, H. J., Lamar Building,  
Augusta, Ga.  
Battey, W. W., 428, 6th St., Au-  
gusta, Ga.  
Bernard, G. T., 203, 13th St.,  
Augusta, Ga.  
Blanchard, C. A., 924 Broad St.,  
Augusta, Ga.  
Bryans, C. I., Lamar Bldg., Au-  
gusta, Ga.  
Caldwell, J. M., Masonic Bldg.,  
Augusta, Ga.  
Coleman, T. D., 936 Hickman Rd.,  
Augusta, Ga.  
Comey, P. P., 872 Hickman Rd.,  
Augusta, Ga.  
Crane, C. W., Lamar Bldg., Au-  
gusta, Ga.  
Cranston, W. J., Lamar Bldg.,  
Augusta, Ga.  
Davidson, A. A., 1116 Greene St.,  
Augusta, Ga.  
Deas, A. J., 1142 Greene, St.,  
Augusta, Ga.  
Eve, H. J., 619 Greene St., Au-  
gusta, Ga.  
Houston, W. R., Lamar Bldg.,  
Augusta, Ga.  
Kilpatrick, A. J., 704 Greene St.,  
Augusta, Ga.  
Kershaw, M. M., Herald Bldg.,  
Augusta, Ga.  
Kershaw, Theo, Herald Bldg.,  
Augusta, Ga.  
Mulherin, F. X., Lamar Bldg.,  
Augusta, Ga.  
Mulherin, W. A., Lamar Bldg.,  
Augusta, Ga.  
Page, H. N., Lamar Bldg., Au-  
gusta, Ga.  
Moore, N. M., Lamar Bldg., Au-  
gusta, Ga.

Montgomery, C. J., 918 - Johns, Rd., Augusta, Ga.  
 Murphy, E. E., 432 Telfair St., Augusta, Ga.  
 Page, H. N., Medical College, Augusta, Ga.  
 Price, W. T., Harrison Bldg., Augusta, Ga.  
 Revell, S. T., Louisville, Ga.  
 Pund, Edgar, Lamar Bldg., Augusta, Ga.  
 Roberts, W. H., 824 Greene St., Augusta, Ga.  
 Rice, E. P., Leouard Bldg., Augusta, Ga.  
 Rhodes, R. L., Lamar Bldg., Augusta, Ga.  
 Shaw, H. W., Lamar Bldg., Augusta, Ga.  
 Trayler, G. A., Lamar Bldg., Augusta, Ga.  
 Wright, J. B., 315, 9th St., Augusta, Ga.  
 Wright, P. B., 315, 9th St., Augusta, Ga.

#### SPALDING COUNTY

##### Officers.

President -----Carson, M. F.  
 Vice-President ----Hawkins, T. I.  
 Secretary -----Gable, L. M.  
 Delegate -----Frye, A. H.  
 Alt. -----Howard, W. S.

##### Members.

Anthony, E. R., Sr., (honorary) Griffin, Ga.  
 Anthony, J. R., Griffin, Ga.  
 Austiu, W. H., Griffiu, Ga.  
 Carson, M. F., Griffin, Ga.  
 Conn, Webb, Griffin, Ga.  
 Drewery, T. E., Griffin, Ga.  
 Farrer, D. A., Griffin, Ga.  
 Frye, A. H., Griffin, Ga.  
 Gable, L. M., Griffin, Ga.  
 Gable, N. W., Brooks, Ga.,  
 Griffith, C. F., Griffin, Ga.  
 Hawkins, T. I., Griffin, Ga.  
 Howard, W. S., Griffin, Ga.  
 Hunt, K. S., Griffin, Ga.  
 Sullivan, C. F., Griffin, Ga.  
 Thomas, J. M., Griffin, Ga.  
 Tucker, C. L., Griffin, Ga.

#### STEPHENS COUNTY

##### Officers.

President -----Isbell, J. E. D.  
 Vice-President ----Parker, W. H.  
 Secretary -----Ayers, C. L.  
 Delegate -----Ayers, C. L.  
 Alt. -----Crawford, J. H.

##### Members.

Ayers, C. L., Tocecoa, Ga.  
 Chaffiu, E. F., Martin, Ga.  
 Craig, Alexauder, Tocecoa, Ga.  
 Crawford, J. H., Martiu, Ga.  
 Davis, J. H., Martin, Ga.  
 Davis, Jeff, Tocecoa, Ga.  
 Isbell, J. E. D., Tocecoa, Ga.  
 McBath, W. L., Tocecoa, Ga.  
 Farker, W. H., Tocecoa, Ga.  
 Terrell, J. H., Tocecoa, Ga.

#### STEWART-WEBSTER COUNTY

##### Officers.

President -----Lunsford, J. F.  
 Vice-President ----Pickett, C. E.  
 Secretary -----Lovvorn, R. M.  
 Delegate -----Kenyon, J. M.

##### Members.

Allen, R. H., Omaha, Ga.  
 Kenyon, J. M., Richland, Ga.  
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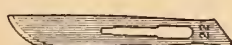
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# THE JOURNAL

OF THE

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### ORIGINAL ARTICLES

#### STATUS OF CHILD HYGIENE IN GEORGIA. \*

W. L. Funkhouser, M. D., Associate Professor of Medicine, Pediatric Department, Emory University, Atlanta, Ga.

Georgia of tomorrow will be what the children of today make it. The children for whom we are planning are to be the State's asset or liability. We as citizens, parents, and physicians are responsible to the commonwealth to give in physical and mental development the greatest of asset with the minimum of liability. The intelligent parent is giving his child the mental and physical training that will fit him for life's battle and the State should recognize the value of doing for all that which otherwise could be done for only a few. Our State therefore is trying to prevent and correct defects; to reduce morbidity and mortality and is striving to develop a higher type and more efficient citizenry. This they are doing thru the Children's Division of the State Board of Health.

The purpose of this paper is to show what has been done and to give their tentative plans for the future. It is necessary for every doctor to know how far the plans are to affect him and his community. This should be discussed in order that the Health Department can know our views. The Director wants and must have cooperation as well as constructive criticism, in order that the work may be productive of good without any local antagonism. We cannot be passive, we must either favor or oppose.

The State of Georgia has appropriated

\$10,000.00 for the Children's Division. This is one half of the average amount appropriated by the various States for Child Welfare activities. Forty-three states have organized Child Hygiene Divisions. Eleven of the Sixteen Southern States have a Child Hygiene Division. We are one of the five Southern States having our child welfare program under a Doctor.

The problems that present themselves are:

1. Pre-natal care.
2. Care at birth.
  - (A) Midwives; registration, education.
  - (B) Control of ophtalmia neonatorum.
  - (C) Birth registration.
  - (D) Supervision of maternity homes.
3. Infant and Pre-school care.
  - (A) Children's Health Centers.
  - (B) Control of milk products.
4. Care of Children in School.
  - (A) Health Education.
  - (B) Physical examination and health supervision.
  - (C) Health classes for special groups.
  - (D) Sanitation of school houses and their environment.
  - (E) Child labor.

#### Prenatal

There is only one organization attempting pre-natal work, that being the Gray Clinic in Atlanta. This, tho fairly new, is doing very effective work, having an average monthly attendance of 125. Other pre-natal work is done in some communities in a sporadic manner by public health nurses and health officials. Should we not realize the urgency of pre-natal care and see that simliar clinics are established?

#### Care at Birth.

The problem of the mid-wife involves not

\* Read before the Medical Association of Georgia, May 4-6, 1921.



only registration, but teaching her better obstetrics. Fifteen to eighteen deaths from puerperal septicaemia are reported in our state each month. The State Board of Health is planning a series of simple lessons for the mid-wife to emphasize the salient points of obstetrical care. These lessons are to be distributed thru the Health Officer and the local Registrar. It is imperative that the mid-wife be properly trained in order that she may reduce her prorata of preventable deaths. The free distribution of 1 per cent silver nitrate solution to physicians and the mid-wife who desire it will help to reduce our prorata of the 25 per cent of preventable blindness prevalent in the United States. The failure in reporting births, in compliance with the legal requirements, is delaying our entry into the registration area.

### **Infant and Pre-school Age**

Infant and Pre-school age resolves itself largely into two problems: The establishment of child health centers and the control of the milk supply. There are 12 of these health centers now in operation and seventeen organizing. The work of the health center involves the initial examination of the child, with subsequent weekly weighings, advice and suggestions given to the mother, with no attempt at corrections of defects or treatment except along hygienic lines. The milk problem is touched only sporadically and then only from the sanitary rather than the preventive side.

### **Care of Children in School**

School health problems and school hygiene involve the question of the health, the environment and the education in health habits and physical examination of the school child. The public health manual published for use in all the schools of Georgia covers the regular physical training work, the morning inspection and lessons in hygiene. This manual is here for distribution to all who desire it. Nutrition work is done in a large number of counties; this usually thru the Home Demonstration Agents, who are trained in home economics. There are about 100 of these Home Demonstration Agents in Georgia. In many of the schools the hot school

lunch and the mid-morning lunch are in operation. This casually supervised work touches but to a slight extent the problem of mal-nutrition. 46,366 children have had medical examination this year and in addition there have been some examinations of children by school nurses and teachers. This does not include the work done in the larger cities. In all these examinations follow up work was urged with the correction of 6,100 defects. Clinics were established in 8 places and are organizing in 13. Group correction by means of these are in the nature of throat, dental and medical correction. When re-organized our educational system will provide special classes for backward children and vocational training, for directing the mis-directed energies of the delinquents. The State has recently taken over a plant in Augusta which will be used as a school for training mentally defective children. It is unfortunate that no appropriation for the maintenance of this institution was made. It is to be hoped that the work of the proposed Childrens Code Commission will result in the adoption by the State Legislature of a definite code covering questions of child welfare, inclusive of those pertaining to the child in industry, the supervision of maternity homes and the handling of delinquent children.

The non-medical agencies interested in the promotion of child welfare are the Women's Clubs, Parent-Teachers Associations, W. C. T. U., Home Demonstration agents, Red Cross, Anti-Tuberculosis Association and others. These organizations have committees doing child welfare work. As a result of this multiplicity of organizations without a controlling head, there is overlapping of activities, just as we have in our Federal Department as a result of no departmental head. To do constructive work there must be a central organization, co-relating all other state, municipal and lay agencies. Just as the State is cognizant of public health problems of the State, medical men should be cognizant of the health problems in their community. With the proper public health viewpoint they can be a guide and an aid to the otherwise uncontrolled worker.

We have a State Pediatric Society, the ob-



ject of which is to promote and improve the practice of medicine among children and to develop the preventive viewpoint in the study of child life. Pre-requisite for enrollment is membership in the State Medical Association and an interest in better pediatrics. The executive officers will, at the request of the State Board of Health, act in an advisory capacity in all child welfare measures. This gives the Health Department the moral support it should have and the advantage of well considered advice.

A great advance has been made to give the doctor of tomorrow a preventive viewpoint. The American Pediatric Society has outlined and recommended a course in Preventive Pediatrics to be given in all medical schools. While this has been given along with didactic work, a distinct course with training and observation in health centers, school inspection, milk stations and nutrition clinics has been missing. Such a course will give a vision that the average young doctor has heretofore lacked.

It is impossible to calculate the value of the health education that has been accomplished in the State. Has the State made the best of its \$10,000.00? Should it do more? Can it meet even the minimum requirements on the limited appropriation? We are too large a State to be satisfied following the minimum, but should strive to lead. Child Hygiene in Georgia has but started, the Division of Child Hygiene being less than a year old. The problem is big, is vital, and commands the cooperation of the medical profession. It has reached a momentum we cannot stop if we would. It therefore behooves us to know what is being done and direct the efforts of all agencies, state, municipal and lay, for there is a potential energy in every community needing only the medical mind to direct.

I wish to express my thanks to Dr. Bocker, Director of Children's Division of the State Board of Health, for information and assistance; Dr. Abercrombie, Secretary of the State Board of Health, for pamphlets for distribution, giving details of the work and statistics.

20 Ponce De Leon Avenue.

#### Discussion on the Paper of Dr. Funkhouser.

DR. A. G. FORT, Atlanta: It is my pleasure to be more or less connected with some of the work referred to by Dr. Funkhouser, which has been carried on by the Georgia State Board of Health under Dr. Bocker; that is the correction of defects found while making medical inspection of school children. Therefore I take the liberty of discussing some of the points presented.

While engaged in Health work with the Georgia State Board of Health and the Rockefeller Sanitary Commission, several years ago, the necessity of such work was evident. We could suggest to the patients that they have these defects corrected, but we could not make proper provision for them, as there was no organized agencies for taking care of them. As time passes, and the number of school children inspected increases with the work being done, we see the necessity of making the necessary provision, and unless we as physicians get together and make the much needed provision for taking care of these children who are not able to pay for having necessary corrections made, sooner or later we will be face to face with state medicine. We must make provision for it, if not, the people will demand departments of health in each section to take over this work, and then they will have running every day in the week in each county or in each number section a clinic for the correction of various defects. As to whether this is what we want or should have, I am unable to answer. As physicians, or as a medical association we have reached the point where we must help solve these problems, or stand back and let them solve it either to our detriment or benefit.

Relative to throat defects, which I have been called upon to assist in correcting, when we work with the State Board let us not lose sight of this one important thing: We must be safe in the work which we do and lay down an absolutely safe plan to follow. For instance, in the removal of tonsils away from our hospitals, we have laid down this minimum proposition, that they have a well prepared room for these operations; that they have a well ventilated ward for taking care of these patients when operated on, and keep these children in these wards under the care of a nurse and close enough to a physician so that if any accident occur the physician can at once take care of them.

We have done 33 of these operations for the State Board through these different organizations, and as yet have had no accidents, but in one state where they have not taken precautions as we have, they have had a few fatalities which tends to bring the work into disrepute.

Dr. Bocker is not a member of the Association, and I move that we extend to her the privilege of the floor.

Seconded and carried.

DR. DOROTHY BOCKER, Atlanta: I want to appeal to you gentlemen, as I have appealed to various organizations in the field, to help this public health work. The women's clubs and other organizations are interested in benefitting the health of the people, and more especially the health of our children; the pressure that is being brought to bear on this subject is coming from the outside, but the urge should come from within, the medical profession should enlist in the work. I get letters to come to a certain community, and I find that while there is a good response from lay organizations, the medical men are lagging behind. Let me quote from a letter I have from an up to date school teacher: "It has been the rule of the Board of Education to require that each child upon entering school must have a certificate of health from some physician, but this was found to be so flagrantly violated that something of practical value had to be substituted." That was a good criticism of an intelligent school teacher.

Let me quote a paragraph from another letter. This shows what will happen in a community when medical men are not taking a leading part in this work.

It is not enough to be interested in this thing; you must do some work.

This comes from a woman who has been a child welfare worker in a certain county. She admits that effective work cannot be expected without securing the co-operation of the physician. She says, "Please don't get the idea that doctors are antagonistic; they are far from that. They have offered me the use of their offices and even instruments. It is just that they do not know and are so behind in modern methods that they cannot accept my viewpoint."

I have another letter from a woman who says: "There are seven physicians in this town, each physician taking one grade in our school and examining it." That is the way the physicians of a community can help effectively.

Let me repeat if the medical profession wishes to take its rightful place in public health work the pressure must not come from without but must come from within.

DR. W. A. MULHERIN, Augusta: I think it was Dr. Chapin of New York, quite an authority in pediatrics, who said that dollar for dollar put in infants' and children's welfare work, paid better and bigger dividends than when put in any other phase of public health work. There is more truth than poetry in his statement, for we all realize today that 50% of preventive medicine lies along the line of child welfare work. The truth of this statement can likewise be substantiated by recalling the fact that 30 to 40% of our young men who came up for examination, in the recent draft order of the army were turned down on account of physical defects, that were remediable in their early years

of life. If these defects had been given the proper attention during their infancy, pre-school age, or school age, no such lamentable state of physical defects would have been found.

It is gratifying and encouraging, as Dr. Funkhouser has stated, to see the general awakening that is occurring throughout America demanding that more attention and time be given to babies' and children's physical welfare. This fact is shown by forty-three states today having a well organized Division of Child's Hygiene as a component part of their State Board of Health. Before the war there were but six. Likewise, in nineteen states commissions have been formed to look into the re-codifying of the laws of their state that pertain to the interests of infants and children. It should be pleasing to the physicians of our state, and likewise gratifying to the citizens of Georgia, to know that we have a very efficient Division of Child Hygiene as a component part of our State Board of Health.

As chairman of your state committee on Health and Public Instruction, it is a pleasure to commend the good work and efficiency of the Georgia Division of Child Hygiene. I have had occasion to call upon this department for certain data pertaining to Infants' and Children's welfare work, requested of me by the American Medical Association, and I have always received a prompt reply and the necessary information requested. Likewise the active work that is going on throughout the State by this Division of Child Hygiene is practical, beneficial and far-reaching in its good results.

With such good work going on by our State Board of Health is it not the duty of every reputable physician in Georgia to lend his active support to their very commendable and efficient work? Should we not, to a man, get back of them and assist them in every way rather than impede their progress by not complying with their every wish that tends to better health throughout Georgia? Let us support our Division of Child Hygiene so efficiently that a similar condition will arise that occurred a short time ago in a neighboring state. In the state referred to the undertakers entered a formal protest against their Division of Child Hygiene upon the ground that since its inauguration too few babies were dying in that state.

DR. M. M. McCORD, Rome: I quite agree with Dr. Funkhouser, that what we are tomorrow depends on what we do for our children today. I also believe we can correctly say that ninety-five percent of child welfare work is educational, and the proper time to start that work is before the children reach school age. To this end there is nothing better than to have child welfare stations.

But it seems to me we are not doing all we might in connection with the public schools. In many instances the schools are skipped over or merely go through a form. If the state department



of education would place greater emphasis upon these matters, much larger results might be obtained. I was determined while in charge of the work in Floyd county to follow up this work conscientiously, and the results were very satisfactory. If all the schools throughout the state would have this thorough medical inspection in connection with the proper follow-up system, our men and women of tomorrow would be far superior to those of our own generation.

My experience taught me that some fifteen percent of those children discovered with defects would scarcely get the necessary professional service on account of financial obstacles. We proceeded immediately to organize a clinic here in Rome to take care of these cases. By the way, this clinic is on the floor just above us, and it will be open for your inspection while you are here. By careful and tactful and systematic follow-up work we were able to get many of these children to our clinic. Without it at least several hundred would have gone through life with their handicaps. It really costs little, and the clinic has the co-operation of every physician in the county. You can not organize and carry on a thing of this kind without the full co-operation of the local physicians.

Now, I would like to repeat that not enough interest in these things has been manifested by the Board of Education. They and the teachers could well put a great deal more stress upon it, for they know that without health the children can not do their best work in school; and, besides, they will be of less value to the world after they leave school if these defects are not corrected early. I hope that this Association and the individual members of this Association will keep hammering upon these matters until the school authorities in every community of the state place due emphasis upon medical inspection and thorough follow-up work, for satisfactory results can not be obtained without the full co-operation of the educational forces.

DR. P. V. MIKELL, Columbia, South Carolina, was asked to take part in the discussion. He said: I tried to sit quiet, but being interested in this wonderful work I feel that I would be derelict in my duty if I did not say something about the conservation of vision of school children. I do not believe that was touched on in Dr. Funkhouser's paper. I think statistics show that one out of seven school children have defective vision and need proper correction. In Columbia we have a free clinic to take care of these school children who have defects, nutritional disturbances, disturbances of vision, throat conditions, and surgical conditions referred by the schools. In this small city we have six thousand children who came in touch with this institution last year.

One of the most important things in connection with this child welfare work is the conservation of

vision. I think there ought to be a test chart in every school room in this land of ours. It does not take any one of great intelligence to tell whether a child has 20/20 vision or not. We are trying to get the teachers sufficiently interested to take vision tests of every child upon entrance of the school year.

DR. WILLIAM C. LYLE, Atlanta: I am aware that what I am about to say is not in accord with some of the remarks that have been made. In justice to the medical profession and the Medical Association of Georgia perhaps a word might not be amiss in the way of explanation.

In the first place, regarding legislation for the free distribution of 1 per cent. silver nitrate solution as brought out by the essayist. There is always a tendency to disregard multiplicity of laws, and multiplicity of regulations particularly, if they are not very apropos, will tend to be disregarded. Personally, I cannot help but feel it would be sort of reflection upon the medical profession if it should be made necessary to send out for free distribution 1 per cent. silver nitrate solution. It would cost infinitely more to distribute this than to make it. The medical profession of this state is well aware of the necessity of silver nitrate solution, and there is not a doctor who could not make up the solution.

Relative to the lack of interest taken by the medical profession in child welfare work, it may be due to this: The good women who are doing this work and are doing it voluntarily in many instances are inclined to dictate to the doctor what should be done. A doctor does not like a layman or a lay woman to dictate to him what he should do and especially when it comes to some particular line of work he knows as much about as the layman does, and even more. These things are occurring frequently.

I have the most profound sympathy for the public health officials who are doing this work. I realize what they are up against and what these volunteers are up against at the same time, yet I do not believe that as much tact is displayed as there should be in the conduct of these cases.

Another thing: I guess eventually we will have to consider medicine as a sort of paternal profession anyway. When a doctor treats a patient gratuitously regardless of whether or not it tends to the betterment of the individual who is unable to pay, there is a sense of "riding" the doctor or at least a feeling that the doctor is doing something for his own personal aggrandizement or benefit. A doctor who goes to schools and makes a free inspection of the children is criticized by his clientele and the public generally. They say that he goes and finds these defects in order to correct them and make money out of it, and the doctor is sensitive about things of that kind. In other instances doctors volunteer to do work of that nature in the



free clinic, which, of course, should be carried on. But when doctors offer their services free they are taken advantage of by people who are abundantly able to pay. They take advantage of the free clinic for the treatment of defects and disorders that should be paid for. I believe there is not a doctor present who is not perfectly willing and glad to do anything he can for charity. I think our profession does as much work for charity as any profession on earth, and perhaps a little more, at the same time the doctor does not feel that he should be imposed upon, and that is one of the reasons why these women engaged in this work find that the doctor is not perhaps taking just the attitude that they might expect him to take. During the past four or five years the medical profession has been called upon to do a great deal of work for which they have received no compensation. I am not quite sure but it is just as well for the medical profession to wake up and realize that they should be paid for their services in doing certain work. If the government is going to provide teachers, why should it not provide for the care of these defects. Far be it from me to say that we should ask the government to make a provision of that kind. If they are going to have inspection and find defects, why not make provision for correcting those defects, instead of calling upon the medical profession to go on and do this work as a charity. I have not noticed that people in commercial life are called upon to render services or supply their goods without pay. Some of these men made enormous profits during the war times just past, while the doctor was asked to give his services at various boards, etc., but we have not heard that the local dealer, the insurance company, the seller of any supplies, has been called on to donate to the public, from his stock in trade.

DR. W. L. FUNKHOUSER, Atlanta (closing): I am sorry there was not more discussion along the line Dr. Lyle mentioned. Child hygiene is here; it has come to stay, and will grow rapidly. If the medical profession does not direct it, it will be directed by the lay organizations, and personally I feel it is up to the doctor to direct all child welfare measures in his community. It really means this, that there should be a National Board of Health, with a cabinet officer, through which all state health agencies should work and under whose direction all municipal organizations should come.

We are very fortunate in Georgia in having as our Director of Child Hygiene, a doctor. A good many states have a nurse, and while these nurses have done their work efficiently, they have not a medical viewpoint, and as a result there has developed antagonism which would not otherwise have arisen. We must do something toward directing this work. We should do it now as the Child Hygiene Division of the State Board of Health is just in its infancy, it being less than a year old. I am

sure the policy of the State Board of Health is to do that which is going to bring the best results not only to the medical profession but to child hygiene at large.

## ETIOLOGY AND TREATMENT OF HIGH BLOOD PRESSURE

By Rufus T. Dorsey, M. D., Atlanta, Ga.

The treatment of high blood pressure has for many years been one of our hardest problems, because of the fact that the average patient has unfortunately gotten into the habit of believing that it is a disease and not a symptom.

The symptom high blood pressure is of considerable interest from a mechanical standpoint, but one of the least in importance when we come to consider the syndromé of symptoms of which the average patient complains,—and of which high blood pressure is one only. We should try not to consider high pressure in itself, an object for treatment, but we should so dovetail it into the symptom complex, that, in proportion as the other symptoms are relieved, it too is benefitted.

For many years I have been searching for some tangible and essential cause of high blood pressure. In most cases I find that I have to look for the cause of many other symptoms that are often more dominant than the pressure, as, for example, indicanuria, high acid urine, constipation, foul breath, sour stomach, gas, weakness, etc.—symptoms that may have been gradually troubling the patient for a period of years. Unfortunately permanent high blood pressure is one of the late symptoms of something that has been going on over a long course of time. For a number of years I have been taking most detailed histories and doing careful physical examinations and laboratory studies of these patients, and I usually wait until the end to consider the high pressure symptom.

In the majority of cases one finds more than enough to account for the discomfort of the patient, even without taking the pressure into consideration. I believe that the treatment of the high blood pressure syndrome should be very largely preventive. We must, therefore, take a very careful his-

tory and do a thorough physical examination on every patient who has reached pressure age; we must inquire into his daily life as regards exercise, occupation, diet and habits in general; and above all things we must try to determine whether this patient be a potential high blood pressure case. We should then take time to explain in detail what certain common things such as headaches, constipation, gas, focal infections, obesity, over-eating and irregular habits mean to his health, and to try to make our instructions so impressive that he will carry them thruout life. The doctor must be a forceful instructor; he must be patient and take time; he must have both a broad and concrete conception of all the cases with which he comes in contact. He must do everything for the patient. He must be conscientious and attentive to the symptoms of which the patient complains, and he must account for these symptoms by hard thinking and personal interest in each case.

In the general examination of patients I have found present as symptoms two kinds of high blood pressure:

1. A transient high pressure.
2. A permanent high pressure.

The two are usually found as separate and distinct entities. However, I do not mean to state that a transient pressure may not become a permanent pressure. I shall discuss first the causes of the transient pressure, as it is impossible to explain any treatment without a conception of the cause.

1. Acid indigestion will frequently cause a transient high pressure due to the high acidity of the system and the action of such acidity on the vaso-motor system.

2. Acute asphyxia will cause a transient high pressure due to a stimulation of the vaso-motor system by the venous character of the blood.

3. Acute cerebral compression will also cause a transient high pressure due to an anemia of the vaso-motor system, with a local lack of oxygen and a local accumulation of  $\text{CO}_2$ .

4. Acute nephritis, eclampsia and uremia, due to changes in function rather than struc-

ture, and evidently caused by a general constriction of the systemic arterioles produced by some toxic substance in the blood stream, will produce a transient high pressure.

There are other causes of transient high pressure, but these are the most important, and the treatment of such cases is well outlined in your minds.

We come now to a consideration of permanent high blood pressure. From a diagnostic standpoint, it is a most difficult task to determine the cause of a permanent hypertension. Instrumental methods of determining blood pressure in man have shown that one of the most important as well as one of the most common pathological disturbances after the age of forty is a continued increase in arterial blood pressure. The pathogenesis of chronic arterial hypertension is still obscure, as is also its precise relation to associated renal and arterial diseases. Yet from a functional standpoint, chronic arterial hypertension constitutes a fairly well defined entity. At autopsies of patients dying of kidney diseases, a hypertrophy of the heart is often found, which would lead one to believe that this might be due to increased arterial tension, and these findings at autopsies have lead to frequent discussion of the relation between renal diseases and arterial hypertension. We have seen in certain types of acute nephritis that an arterial hypertension may appear early, —and it may disappear when the nephritis subsides. Chronic disease of the kidneys may or may not be accompanied by an increase in the arterial blood pressure. In amyloid disease of the kidney the blood pressure is rarely increased; in chronic glomerular nephritis it is increased in a moderate proportion of the cases; while in chronic interstitial nephritis, hypertension is the rule. On the other hand, chronic arterial hypertension may exist with no evidence of renal disease. Practitioners not infrequently encounter patients with chronic arterial hypertension who show no changes in the urine, microscopical or chemical. Recent studies by pathological anatomists have proven that in certain cases, the kidneys of patients with arterial hypertension are entirely normal,



and even though anatomical changes are found, these bear no definite relationship to the degree of arterial hypertension. It has therefore, been demonstrated that while renal diseases and arterial hypertension are frequently associated, the kidney changes can not be regarded as the sole direct cause of the heightened blood pressure.

Whatever may prove to be the ultimate cause of arterial hypertension, its immediate cause must be either an increased output from the heart, or an increased resistance to the escape of blood from the large arteries.

The methods of determining the output from the heart in man are still of uncertain accuracy, but no increased output is believed to be present in arterial hypertension. Furthermore, the flow through the arm is not regularly or materially increased in patients with chronic arterial hypertension, indicating that in the vascular areas, at least, the heightened blood pressure causes no increase in the flow of blood. At post mortems in early stages of arterial hypertension, the left ventricle alone is hypertrophied, which indicates that the pressure was raised in the systemic and not in the pulmonary circuit. Only in the later stages of the disease, when there had developed a weakness of the right ventricle, or an insufficiency of its valves, was the right ventricle affected. Electrocardiographic records also indicate that there is a predominant hypertrophy of the left ventricle in arterial hypertension. It seems fairly certain, therefore, that in the earlier stages of chronic high blood pressure, the left ventricle alone is hypertrophied. This indicates that the cause of the hypertension is neither in increased output from the heart nor an increased viscosity of the blood, for both of these possible causes would affect the left and right ventricle equally.

The immediate cause of the hypertension is, therefore, to be sought in an increased resistance to the escape of blood from the arterial tree of the systemic circuit.

In seeking some practical cause of the condition of hypertension, we find ourselves dealing with the delicate capillary circulation, and I believe that the disturbance of this circulation is due to some toxin manu-

factured by a faulty metabolism, such toxin either affecting the delicate arterioles and venules, or indirectly affecting the capillary circulation by its action on the vaso-motor system.

With this conception of hypertension I have been investigating the primary causes of poor body chemistry and faulty metabolism. I wish to mention here some of the conditions that are ever present in chronic high pressure cases.

1. Chronic focal infections. Bad teeth, chronically infected tonsils, sinuses, prostate glands, pyelitis, chronic cholecystitis, chronic appendicitis and infected uteri, so upset one's metabolism that as a result certain metabolic poisons are formed that usually exist for a long number of years. These poisons in turn affect one's vascular system, as well as producing many other most uncomfortable symptoms.

2. Overeating, The overeating of unbalanced diet is one of the most productive causes of poor metabolism. Foods are robbed of so many of their natural products during the process of manufacturing, being made to appeal to taste rather than to furnish proper nutrition, that one is inclined to eat too much of the articles of diet that are taste-satisfying rather than the ones that constitute a balanced diet and nutrition. Food excess, too much liquid at meals. Improper mastication, irregular eating, with lack of outdoor exercise, will produce an intestinal fermentation with formation of toxins which in itself will cause the syndrome of high pressure symptoms.

3. Chronic malaria and syphilis will disturb the body chemistry and metabolism, either by affecting the vascular system directly or by clogging the capillary circulation.

4 Excessive worry, hard work and excitement will produce certain vascular spasms, as well as upsetting the internal secretions. If continued for a long period of time, these conditions will upset the systemic vascular circuit.

5. Chemical poisons from without, as lead, alcohol, etc., will upset one's metabolism and produce certain poisons that have a special



predilection for the delicate capillaries and veins, raising systemic pressure.

6. Poor vascular tissue, disturbances of the internal secretions, will of course, predispose one to high pressure disease, but I believe this to be comparatively rare, and we will do well to clean up all these other things before considering such factors as a cause of arterial hypertension.

I can not tell you the exact poison that is formed by these existing conditions, neither will I try to explain the ways and means by which the vascular system is acted upon, for I do not know. I will say, however, that after many years of careful observation, the clearing up of the above named conditions has been of more therapeutic value to me than all other remedies that I have used in the treatment of hypertension. The treatment that has aided me most, consists of:

1st. A careful cleaning up of all focal infections, as bad teeth, bad tonsils, prostate glands and accessory sinuses.

2nd. Diet, and this is the most important measure in the treatment of hypertension. Patients should have small amounts of fluids, little salt, stale or toasted bread in small quantities, very little starchy food, a moderate amount of fresh boiled meat, citrus fruits, and raw and cooked vegetables. The diet should be balanced in 24 hours, not at a meal; best, a fruit breakfast, a raw and cooked vegetables and bread for lunch, and a meat with vegetables raw and cooked for dinner. The varieties of food should be kept very simple, say **four** articles of diet at each meal.

The patient should abstain from sweets and condiments of all kinds, should chew well, take plenty of time to eat, and eat regularly; that, in short, is the diet, and it is most important that the variety be kept simple.

3rd. Rest. Hydrotherapy, massage and graduated exercise. The patient should rest in bed certain portions of the day and at night; should have baths followed by friction massage daily. I think hot packing is most important in many cases.

4th. Medicine Tincture of aconite, nitroglycerin, nitrites, cholegogues with salines.

Treat the syphilis and malaria. Patients who have had malaria are generally improperly cured, and I always give them quinine and arsenic in tonic doses for a period of time.

5th. I have left until last the preventive treatment. I believe we should make most careful examinations of patients who come to us complaining of common symptoms such as weakness, headache, exhaustion, loss of energy, slight constipation and gas, because it is then that one's chemistry and metabolism are beginning to get wrong, and if we can correct this trouble, then we have accomplished as much as when we inoculate against typhoid or vaccinate against smallpox.

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### THE FACTOR OF ATONY AND PTOSIS IN GASTRO-INTESTINAL DISTURBANCE.

John B. Fitts, M.D.,  
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The symptomatology of gastro-intestinal disease is so often varied, obscure, and associated with other symptoms that rational interpretation is frequently difficult.

I wish to present to you one phase of the subject, that of the neuro-muscular factor, which expresses itself in gastro-intestinal atony with the ptoses as a secondary factor. Says Stockton of Buffalo: "Atony, transient and persistent, is often the cause of the complaints made by the dyspeptic and the convalescent, and a thorough understanding of the question is of practical importance." A critical review has been made of 500 cases coming with some gastro-intestinal complaint.

Recalling to mind the term, neuro-muscular, on which basis I wish to present this subject, it is well to emphasize the statement of Pottenger, who says if we study gastric symptoms from the standpoint of visceral neurology, we can approach such conditions as nausea, vomiting, disordered secretion and motility in a manner which makes many of them intelligible and also in a manner which will often point the way to relief.

Atony is a functional disorder of the

gastro-intestinal tract in which there is a deficiency of tone in the circular muscular fibres, producing a relaxation of the concentric contraction of the hollow viscus upon its contents. This peristole is entirely different from peristalsis, which of course is also a motor mechanism.

The innervation of the stomach and intestines is derived from the vagus and sympathetic system, the actuating motor fibres coming from the former with the inhibiting fibres from the latter. Stimulation of the vagus causes an increased muscular contraction and increased glandular secretion. Stimulation of the sympathetic produces diminished muscular tone and decreased secretion. Sympathetic fibres are distributed freely to the pyloric portion of the stomach and rather poorly to the cardiac end. It is in the pyloric portion that we find the ill effects of over sympathetic stimulation with its resulting relaxed musculature and low grade motility. The etiology of deficient motor tone in the gastro-intestinal tract is interesting because it explains the long history of gastro-intestinal upsets related by certain individuals, dating even back to childhood; in other words, the congenital cases. Here the alimentary tract shares the weakness of the general bodily musculature, such individuals having an attenuation of muscle and a laxity of connective tissues. There is a general bodily flabbiness with a pendency of the mammae, buttocks and abdomen. These individuals sooner or later in life, due to stress of living or as sequelae of infections, will at sometimes present gastro-intestinal symptoms. The acquired causes of atony are due to innervation, such as over-sympathetic stimulation from toxic, reflex and general nervous disturbances, frequently temporary or of more constant duration.

Many of these cases go on for years, never consulting a physician; many become constant takers of medicine, followers of various food fads and cults. Recalling the most prevalent causes, that of sympathetic stimulation from toxemia and psychic states, such as fear and anger, we can definitely localize the symptoms, as common examples, the resultant atony from the toxemias of tu-

berculosis, and as a sequelae of typhoid, and particularly influenza. One is struck with the large number of post-influenzal gastro-intestinal disturbances. In reviewing such cases in the last two years, in a large number of atonic conditions, the underlying factor is derived from pre-existent toxemia of influenza.

There is very little ground to attribute gastric atony to such causes as over-eating and over-drinking. I do think, however, that under-eating, irregularity of meals, and hasty eating is frequently a cause. There is no particular relationship between gastric secretion and gastric atony. In the analysis of 500 cases, presenting themselves with gastro-intestinal symptoms, atony is found in 20 per cent alone, and in association with other conditions. Atony associated with ptosis occurs in 13 per cent.; in association with hyper-chlorydia, 4 per cent. In gastric ulcer it occurs in three cases; without atony, in 8. In duodenal ulcer atony is found in eight cases, without atony 28 cases. In coloptosis, it is found associated in 30 case; alone in 25. In spastic colon in three cases, without atony, ten cases. In pyloro-spasm alone it is not found, pyloro-spasm occurring alone in 12 cases. Atony associated with gall-bladder disease is found in 3 cases; gall-bladder disease 27 cases. Chronic appendix is found in 50 cases, in which 14 were associated with atony. One infers from this that gall-bladder and appendix diseases are more productive of vagal stimulation rather than sympathetic.

The normal stomach is found in 30 per cent of cases. The hyper-tonic type of stomach is found in eight cases.

The symptoms of gastro-intestinal atony are:

- 1 A sensation of epigastric fullness. This is always a constant and predominant symptom. A feeling of fullness normally marks the satisfaction of hunger.

Hunger is a sensation due to a contracted gastric musculature. The reason that early satiety is such a characteristic symptom of atony lies in the fact that this relaxation of musculature occurs before eating, and the eating of even small amounts quickly serves



to accentuate this. Other frequent symptoms are anorexia, flatulence and nausea. Ofttimes there is epigastric soreness due to distension. The soreness occurring in these cases is too frequently erroneously diagnosed ulcer.

Headaches of a toxic type frequently occur.

Diagnosis. Physical examination of the abdomen elicits splashing sounds after the legitimate time of digestion is over. The x-ray shows a sagging of the meal in the lower pole of the stomach with a collapsing and approximation of the walls of the pars media. The normal column effect is absent. The peristaltic waves are feeble and of short depth. For the detection of atony and ptosis by roentgenographic examination, the patient should always be in the upright position and never in the prone. The long continuance of atonic states is the most frequent factor in the production of chronic dilatation with eventual ptosis. In the consideration of visceroptosis, we must recognize the wide variation in abdominal visceral topography. Mills in an article in the American Journal of Roentgenology on the "Relation of Bodily Habitus to Visceral Form, Position and Motility," after Schlessenger, has classified four types of the alimentary tract: the ortho-tonic, which is the normal; the hypertonic, corresponding to the viscera found in the stout overweight individual; the hypotonic, found in the slender, rather undernourished type; and the atonic, found in the very slender, markedly underweight type.

It does not necessarily make such a vast difference what the position of the stomach and colon is if the muscular tonus is preserved and its function normal. It is important, however, in any of those types, whether there is maintained a normal intra-abdominal pressure, and both atony and the ptoses are factors in this.

The treatment of anatomy and visceroptosis is best approached from several angles: (1) The correction of malnutrition; (2) the correction of faulty bodily posture; (3) the development of the muscles of the abdominal

wall; (4) the application of the faradic electric current.

Taking up the first of these, namely, states of malnutrition: The majority of these cases when they apply for treatment, as has been previously stated, have been taking food in such quantities far below their bodily requirements. The primary indication here is the steady and persistent increase of food intake, approaching a general mixed diet as rapidly as possible. At first, small frequent meals are best, with a restriction of fluids. The copious drinking of water and milk is to be avoided. Milk should be limited to 4 glasses daily and not more than one glass of any fluid oftener than two hours. The food first used should be cereals, soft eggs, toast, and rice. Later should be added steak, chicken, fish, peas, beans and potatoes. The coarser breads, green vegetables and fruits should be limited.

The abnormal psychic state, which leads to a sympathetic atonia due to worry, fear and anger and unfavorable influences must be particularly corrected. The most important factor in the treatment of atony and ptosis is the establishment of muscular tone in the abdominal wall. This is best accomplished primarily by impressing the patient with the necessity of the voluntary contraction of the abdominal muscles and of keeping them contracted at all times. As an example of the effectiveness of this, one can readily see, during a fluoroscopic examination, the stomach and colon raised from one to six inches and in addition a lateral compression. In some patients with marked abdominal flaccidity, this ability of contraction of the abdominal muscles is practically nil. Another effective measure is the application of proper supports, straps and bands. It has been our custom to apply supports in these cases although it does not necessarily alter the position of the stomach and colon at all. The benefit derived shows that it acts chiefly in increasing the intra-abdominal pressure. Most of the symptoms ascribed to colonic kinks and sagging are really the result of low abdominal tension, interfering with circulation and defecation. Development of the abdominal wall is further helped by moderate



systematic exercises carried on with regularity.

The correction of faulty body posture, is of prime importance. Goldswait, in an article on "The Relation of Posture to Human Efficiency and the Influence of Poise Upon the Support and Function of the Viscera," clearly demonstrated what can be accomplished, especially the correction of faulty spinal postures.

Lastly, the use of the faradic electric current, applied over the abdomen and back for a period of 20 minutes every other day. After its continuance for several weeks, there is noted an improvement in abdominal innervation, less flaccidity of the abdominal wall and an increased tone of the musculature of the whole gastro-intestinal tract. The treatment of these cases requires patience and persistence both by the physician and patient, but the ultimate good results that it is possible to attain are quite worth the effort.

#### MORE REMARKS ON TONSILS WITH SPECIAL REFERENCE TO LOCAL ANAESTHESIA.\*

A. G. Fort, M.D., Atlanta, Ga.

Mr. President and Gentlemen:

It was my pleasure at our 1919 meeting to present "Some Remarks on Removal of Tonsils." I would make no modification of the indications for tonsillectomy, as set forth in that presentation, nor would I modify or change my procedure in doing this operation; but my ideas as to the choice of an anaesthetic have been considerably changed. Then our slogan was, ether anaesthesia unless contra-indicated.

Shocks often make us stop and meditate. I received five within less than three months after reading the paper referred to above. They were about as follows: Doctor I had my first fatality from tonsil surgery today and patient died either under ether anaesthesia or as result of it. Five reports from five different operators with four different

anaesthetists and in four different hospitals. Deaths are occurring occasionally from general anaesthesia direct, or indirect from some kidney lesion or pneumonia caused by it. This being true should we subject our patients to a general anaesthesia, if we can accomplish the same results under a safer local anaesthetic.

The report of the committee on local anaesthesia AMA settles this matter of safety from novocain and adrenalin and by weak solutions of cocaine topically applied.

Our choice is (1)  $\frac{1}{2}$  to 1 % novocaine solution, freshly prepared with five minims of adrenalin solution 1:1000 to each ounce. (2) 4% cocaine solution—(3) Morphine sulphate with atropine.

Forty-five minutes before we are to operate we give patient proper dose of morphine sulph. with atropin hypodermatically. Ten or fifteen minutes before operation mop fauces and pharynx with cocaine solution, paying special attention to line of dissection. It is well to paint over Meekels ganglion with this solution, as the largest nerve supply comes from this source. Then, using a large syringe and medium sized needle begin your injection. Four points usually suffice (a)  $\frac{1}{2}$  in. above lingual attachment under anterior pillow (b) at upper segment (c) opposite (a) under posterior pillow (d) at lingual attachment. Introduce needle so that solution will be thrown between layers of capsule and produce large bleb. Allow the anaesthetic 10 to 15 minutes before proceeding. Now have patient on operating table with back rest elevated at about 45°. Any good headlight or mirror will furnish sufficient illumination.

Instruments needed are, tongue depressor, tenaculum—straight handled, with grasping edge at about right angles—knife, rather dull, and properly curved—scissors, Bowmans angular nasal serrated—snare, any loop snare with No. 7 to 9 wire, Hurd retractor, two haemostatic forceps.

Grasp tonsil above and below with tenaculum and turn same in and back, thus making taut the anterior pillar—with the sharpest part of knife or scissors make nick just through mucus membrane to tonsil cap-

\* Read before the Medical Association of Ga., Rome, Ga., May 4—6, 1921.

sule internal to anterior pillar, about  $\frac{1}{2}$  inch above lingual attachment—introduce knife between these layers and sweep it above and around separating posterior pillar. With one or two quick “sweeps” the tonsil is freed from the pillars. Now particular care should be taken to release same from lingual portion often resorting to the scissors. With same released we carefully place wire loop around entire tonsil and cut it out rapidly.

Give patient some ice water as gargle and allow slight haemorrhage to check; then proceed to the next tonsil. Use no sponge unless considerable bleeding—air and ice water with the adrenalin contained in novocain solution are splendid haemostats. Patient is now put to bed, given ice water both to gargle and drink. Morphine every 4 to 6 hours for 10 hours is ordered. They are kept in bed one to three days, if possible.

Conclusions from experiences are: (1) Local anaesthesia is preferable in large majority of tonsillectomies with adults and where not contra-indicated is anaesthetic of selection. (2) It is safer than general anaesthesia. (3) Shock is not as great. (4) Danger from haemorrhage either primary or secondary are no greater than with general. (5) Operation can be thoroughly and quickly done. (6) It is not adapted when adenectomy is to be done.

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### ANOCIATION IN ABDOMINAL SURGERY.\*

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To whatever success a surgeon may attain, he should never be unmindful of the physical and mental comfort of the patient, whether before, during or after operation. In fact, qualification in the Art and Science of Surgery, embraces not only the mechanical execution of a perfect technic, but tactful management of the case throughout the history, the examination, the operation

and the convalescence. Every discovery of an agent that will alleviate human suffering has met with popular favor and had its enthusiastic advocates.

The purport of this paper is to call attention to a combination of pain relieving agencies in abdominal surgery that will permit of thorough work, added safety to the patient, and a minimum of post operative shock. Whatever inhalation anaesthetic is used, it can be given in smaller doses if the patient be previously partially narcotized by some form of opiate. A still further reduction in the dose may be obtained by the use of a local or regional anaesthetic in conjunction with it. As ether and nitrous oxide oxygen are the most used inhalation anaesthetics at this time, I shall confine my remarks to them and as novocaine meets every requirement as a local anaesthetic I shall use it to represent the group of safe injection anaesthetics.

There are many surgical conditions where a choice between ether and gas oxygen would be determined by the qualifications of the anaesthetist. A specially trained anaesthetist is greatly to be desired in either case, but if such is not available, by no means should a novice attempt to give gas oxygen. The so-called “Safest anaesthetic” in such hands at once becomes the most dangerous. Ether, for so long the anaesthetic of choice in American hospitals, and still considered the “Old reliable,” has its objections, even when given by an expert, and even though it gives a deeper analgesia, and a more perfect relaxation, yet it exerts a deleterious influence on certain tissues of the body and predisposes to a state of acidosis. Even with ether narcosis the abdominal muscles are often rigid and the viscera straining to bulge through the first opening in the peritoneum. This interferes with satisfactory work, and with thorough inspection of the abdominal viscera. On just such cases, a little time used in injecting all the layers with local anaesthetic just as if the patient were conscious, is well spent, for then the tissues are not aware of any injury, and the intestines lie quietly in their proper relations. Whatever the nature of the work

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in the abdomen, if it is done gently, through an ample incision, with little tugging on the mesentary, sharp dissection instead of gauze stripping, the patient will suffer less shock, the tissues come together more easily in closing and the time taken for local injection will be found to be time saved, instead of time lost. Many surgical cases, by their existing pathology, are poor surgical risks. These risks have a further burden by having to undergo a prolonged ether anaesthesia. Here nitrous-oxide-oxygen together with local anaesthesia has its greatest field. It is not without danger but by far the "lesser evil." A preliminary narcosis of morphine gr. 1-6 and scopolamine gr. 1-150 one hour previously; a gas-oxygen anaesthetic assisted by a thorough infiltration of the body wall with  $\frac{1}{2}$  % novocaine to which has been added four or five minims of adrenalin chloride to the ounce together with sharp dissection and gentleness of manipulation of all abdominal viscera, gives the patient the benefit of as near a shockless operation as possible.

The advantages of gas-oxygen over ether are many. The pulse is little accelerated, if any, in the average operation and the blood pressure is maintained. Post-operative nausea is the exception rather than the rule. The extreme retching is almost entirely obviated. Post-operative bronchitis and pneumonia are more infrequent and no irritation of the liver or kidneys is demonstrable.

According to Dr. A. McGlannon in the Southern Medical Journal, March, 1921, a study of the blood pressure of 1000 surgical patients showed that the general anaesthesia by the lipid solvents, ether or chloroform, produced changes in the chromaffin glands, just as are produced in shock from trauma, devitalization by infection, or some disturbance in nutrition and that changes in blood pressure are produced alike by each. He states that when a patient has a good heart and vessels, by careful hemostasis, gentle manipulations, nerve blocking and use of nitrous oxide anaesthesia, it is possible to perform an operation of long duration without shock.

I claim no originality or priority in using anociation whenever I can in my surgical work, nor make any apology for quoting Crile and Lower, for upon their experiments and the clear exposition of their theory of shock and anociations is founded what I have attempted. Anociation as outlined by them is the work of skilled artisans, and like other skilled labor commands a price. However the patient reaps the reward. Asleep a few moments from the beginning, awake a few moments from the ending.

#### Discussion on the paper of Dr. W. A. Selman.

DR. L. W. GROVE, Atlanta: There are certain definite things that must be done in an effort to accomplish the best type of local or anoci-association anaesthesia. They are as follows: First, proper preoperative preparation of the patient and if the patient is to be carried under local anaesthesia, we should go a step further and try to select the type of patients for local anaesthesia. If gas is to be used this factor, of course, can be eliminated. Second, perfect team work in the operation. The more local anaesthesia we use the more accustomed our assistants are to its use and the more expert we become in administering it in an effort to block the nerves. Third, the element of time. Approximately ten or twenty minutes is consumed in injecting the solution and aside from this a certain extension of time must be allowed in every operation that is done under local anaesthesia. This is necessary for various reasons which are readily understood. Fourth, gentleness of manipulation, and to my mind, this is the key note in the successful local or anoci-association anaesthesia. It is by this that the patient, while unconscious, even under gas, is protected from too much trauma which has a tendency to produce characteristic traumatic shock. We are all human, and at times get irritable and in a hurry, and with a patient under the usual general anaesthesia we are prone to be unnecessarily rough with the tissues



and as a result produce unnecessary trauma and shock.

In reference to the new technic I described giving it precedence over the old infiltration method described last year, will say that the advantages are in that by the distal nerve block or conduction type of anaesthesia we get a very much better relaxation than we were able to get when using the old infiltration type of anaesthesia described by Dr. Selman. The argument advanced against local anaesthesia has been with reference to relaxation. This is largely overcome by the conduction type or distal nerve blocking, the result of which we are able to get a more or less complete relaxation of the abdominal wall and as the operation goes along we are not embarrassed by the usual straining and contracted incision that were at times experienced when we used the old infiltration method. It has a second advantage which, fortunately, I have never experienced, indexed by injecting the solution at a distance from the line of incision, we do not run the risk of the non-union, which has been experienced by some surgeons. If local anaesthesia is to be successfully done, the technic must be accurate and thorough. I have recently had the experience of going into a hospital where I do not often work and found that the nurse in charge had prepared only two drachms of the Novocain solution with which she expected me to do an appendectomy. I further know that operations under local anaesthesia have been attempted by men working in this operating room, with very bad results, and these same men have since condemned the method. So small a quantity of the anaesthetic solution produces practically no anaesthesia and if operations are attempted in this way, we would necessarily expect bad results.

For several months we have used a one-per cent solution with Adrenalin using at times as much as six or eight ounces in completely blocking the nerve supply to the field. We continue to use pre-operative doses of Morphine and Scopolamine but have recently reduced the dose from 1/100 gr. to 1/300 gr. of Scopolamine and find that our

results are very satisfactory. Very recently we have been giving this in a solution twenty-five percent Magnesium Sulphate. It is claimed that Scopolamine given in the solution of Magnesium Sulphate exerts considerable more power of relaxation. In addition, we have been giving, the night before, a dose of Chloral. Just how much good this does, I am not in position to say.

Postoperative discomfort suffered by the patients who have been operated under the local or local and gas constituting anoci-association anaesthesia is practically nil in comparison to those who have been operated under ether anaesthesia. Very few of these patients vomit at all and those who do vomit suffer from what you would expect from an ordinary dose of Morphine which is very different from the nausea experienced following ether anaesthesia. Besides, the distention is not near so great, they are given food earlier, the bowels often move without purgation and upon the whole, the post-operative discomfort is decidedly less.

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### THE DIAGNOSIS AND TREATMENT OF HYDROCEPHALUS.\*

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Without attempting to enter into a detailed discussion of so-called "Essential" hydrocephalus, I wish to bring to your attention a few fundamental facts, relative to the pathogenesis, diagnosis, and treatment of this most distressing condition, which have been emphasized during the past few years by various observers. A certain degree of "order out of chaos" seems at last to be accomplished, so that a renewed interest in the subject may be assumed with the feeling that certain recently proposed methods of procedure have at least the value of being logical.

An appreciation of the known facts concerning the origin, secretion and absorption of the cerebro-spinal fluid is the first essential in the clinical study of these cases. It is

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now generally conceded that the choroid plexuses, four-fifths of which lie in the lateral ventricles, are the chief sources of the cerebro-spinal fluid. The fluid, therefore, is formed principally in the lateral ventricles. Weed, by means of some very ingenious experiments, has shown conclusively that the absorption of the cerebro-spinal fluid takes place in the subarachnoid spaces, the exact points of escape being the arachnoid villi, through which, by process of seepage, the fluid enters directly into the meningeal sinuses. It therefore becomes evident that the normal circulation of the cerebro-spinal fluid can not take place, unless there is a condition of normality in the source and in the areas of absorption of the fluid, and in the channels thru which the fluid must circulate in order to reach the area of absorption. These anatomical structures have long been known. The foramen of Monro connects the two lateral ventricles with each other and with the third ventricle. The third ventricle is connected with the fourth ventricle by means of the Aqueduct of Sylvius. The fourth ventricle is connected with the posterior cistern (which is part of the general subarachnoid space) by means of one central opening known as the foramen of Magendie and two lateral openings known as the foramina of Luschka. The cerebro-spinal fluid, therefore, in order to reach the area of absorption, namely, the subarachnoid space, must go from the lateral ventricle into the third ventricle, thence through the Aqueduct of Sylvius into the fourth ventricle, from which it passes into the posterior cistern by means of the foramina of Luschka and Magendie, and is then distributed from the cistern into the general subarachnoid space.

Bearing these established facts in mind, one may readily see that hydrocephalus may be produced by an interference with this normal path of circulation of the cerebro-spinal fluid, the type of hydrocephalus produced depending upon what part of the path of circulation is interfered with. Should the Aqueduct of Sylvius be obstructed by old inflammatory adhesions, the fluid will be dammed back in the lateral and third ven-

tricles; should there be an occlusion of the foramina of Magendie and Luschka, the fourth ventricle and Aqueduct will be distended, as well as the lateral and third ventricles. The hydrocephalus produced under these circumstances is spoken of as the obstructive type. Should the various foramina be patent, yet the abnormal absorption of the fluid be interfered with, either by adhesions in the subarachnoid spaces, or by a faulty development of the arachnoid villi, a hydrocephalus would result which is designated by Dandy as "communicating." Personally I prefer the term "nonabsorptive" as proposed by Frazier for this type of hydrocephalus, as it is much more descriptive than is the term "communicating." For practical purposes this classification of "Essential" hydrocephalus into obstructive and non-absorptive suffices. The additional types of hyper-secretive and occult hydrocephalus as proposed by Frazier are not based upon sufficient pathological data to justify their being separated from the non-absorptive type.

Diagnosis:—In the diagnosis of hydrocephalus it is necessary to determine whether the particular case under study belongs to the obstructive or to the nonabsorptive type, as the character of treatment depends on this differentiation. This differentiation can readily be made by the injection of phenolsulphonaphthalein into the ventricles and into the subarachnoid space. In the obstructive type the absorption of the dye from the subarachnoid space and its excretion in the urine is practically normal. On the other hand, if the case is one of the nonabsorptive type, the dye will not appear in the urine for an hour or more, and the amount of dye excreted during the first two hours will be greatly below normal.

The technique of this test is as follows:

A lumbar puncture is made in the usual way, and after withdrawing 1 c.c. of spinal fluid, inject 1 c.c. of phenolsulphonaphthalein into the spinal canal. Withdraw the urine every five minutes and test for the dye until it appears. At the end of two hours estimate the total amount of dye excreted in the first two hours' specimen of urine.

The second test with the dye can be made



one to three days later, depending upon the rapidity of absorption of the dye from the subarachnoid space following the lumbar injection. If phenolsulphonephthalein is injected directly into the lateral ventricles, it should appear in thirty to sixty minutes in the spinal canal, provided the Aqueduct of Sylvius and the foramina of Monro, Magendie and Luschka are patent. If it does not appear at the end of one hour it is reasonable to conclude that the case under study belongs to the obstructive type of hydrocephalus.

✓ The following is the technique usually employed in performing this test:

Through the right side of the anterior fontanelle a needle is inserted in the right lateral ventricle and 1 c.c of phenolsulphonephthalein solution injected into the ventricle. One-half hour later a lumbar puncture is done and if no dye is present in the fluid it is tested every five minutes thereafter up to one hour after the ventricular puncture. Five minutes specimens of urine are tested for the dye and the total dye excretion in the two hour urine determined as in the first test. Naturally, the amount of dye lost by lumbar puncture must be taken into consideration.

As a matter of completeness in the study of cases of hydrocephalus the method of depicting on the x-ray plate the size and shape of the ventricular system by air injection (a method invented by Dandy) may be employed. Such studies will frequently permit one to diagnose accurately the exact point of occlusion in the obstructive type of this disease. I have used this method in the study of several of my own cases and feel that the information obtained justifies the procedure.

**TREATMENT:**—I shall not detain you with a description of the various operations which have been proposed for the relief of hydrocephalus. It is enough to say that practically all of them are as illogical and as devoid of permanent results as were the simple ventricular tappings practiced by Hippocrates. Within the past two years, however, certain methods of treatment have been proposed by Dandy which have at least

the value of being logical. The application of Dandy's operations depends upon an accurate differentiation of hydrocephalic cases into the obstructive type or the nonabsorptive type.

If the case is of the obstructive type and there is a uniform distention of the lateral ventricles, the obstruction is due either to an occlusion of the Aqueduct of Sylvius in which cases the fourth ventricle will contain little or no fluid, or to an occlusion of the foramina of Magendie and Luschka. In the latter case ventriculography will frequently show the air to be in the fourth ventricle. One of the slides which I will show demonstrates this very nicely.

In the operation for obstructive hydrocephalus the exposure is the same whether the Aqueduct or the foramina are involved. A midline cerebellar exposure is made. If the foramina of Magendie and Luschka are occluded and the Aqueduct is patent, the fourth ventricle will be found distended with cerebro-spinal fluid. Under such circumstances an opening is made in the distended ventricle, thus allowing the fluid to escape into the posterior cistern. If the Aqueduct is obstructed, a midline incision is made in the vermis and by means of a nasal speculum the fourth ventricle is brought into view. A small curved steel sound is passed into the Aqueduct and gently forced into the third ventricle. As soon as the obstruction is perforated fluid will immediately escape. Larger sounds are inserted until the canal is large enough to admit a small catheter. The catheter is now left in situ, the distal end being anchored in the muscles of the neck where it can easily be found at a later operation. The tube is left in place in order to allow the epithelium to proliferate around it, so that on its removal the Aqueduct will remain patent. At the end of three weeks the tube should be removed.

In cases of nonabsorptive or communicating hydrocephalus, Dandy argues that the tests with phenolsulphonephthalein will show that as a rule the absorption is about one-fifth of the normal. As four-fifths of the choroid plexuses are in the lateral ventricles, a resection of these should reduce the amount



of cerebro-spinal secretion to that which can be absorbed. The operations are done in two stages. A small bone flap is laid down over the right occipital lobe. After making a dural flap, the cortical vessels over a "silent" area are ligated and an incision made through the brain into the lateral ventricle. A nasal speculum is inserted through this incision, the fluid in the ventricle removed by aspiration, a small cotton pledget placed in the foramen of Monro so as to prevent blood escaping into the third ventricle, and the choroid plexus resected. This can be done by placing a small silver clip on the vessels supplying the plexus and dividing the structure at its pedicle. The cotton pledget is now removed, the ventricle filled with normal salt solution, the wound in the brain closed with plain cat-gut sutures, and the dura and scalp closed in the usual way. A similar operation is done on the other side a few weeks later.

In presenting the subject of Hydrocephalus for discussion no claim of originality whatsoever is made. The character of the work that has been done during the past few years by various observers is such as to clarify to a certain extent this most distressing and heretofore rather hopeless condition. On this account I thought it would not be amiss to bring the subject to the attention of the Association.

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#### Discussion on the Paper of Dr. Charles E. Dowman.

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DR. JAMES J. CLARK, Atlanta: The making of these ventriculograms while not extremely difficult, requires considerable judgment and skill. There have been many deaths from making ventriculograms up to date. Out of 11 cases we have had no deaths. One of the important things to bear in mind is a careful estimation of the amount of ventricular fluid which is withdrawn. Several men have withdrawn ventricular fluid and have allowed the atmospheric air to flow back into the ventricle. The technic Dr. Dowman has used is, I am sure, very reliable as to the amount of fluid withdrawn and the replacement of that fluid by air.

We have also found out that in replacing an equal amount of air to the fluid which is removed, it does not fill the same space. Either the air is compressed more easily than the fluid which was present, or it is absorbed, or it leaks and escapes alongside the needle. It is best to put in a little more air than the amount of fluid withdrawn.

The field which is open in the diagnosis of brain tumor is just beginning to be scratched. We are trying to determine what a normal ventricle looks like, in a tumor of the brain pressing upon any portion of a ventricle, distorting the normal outline of the ventricle, we get a great deal of assistance in the localization of the tumor. The making of the x-ray study also needs quite a little attention. Air has a faculty of assuming the highest position in closed cavities. You are all familiar with fluid levels in the chest, in hydro-pneumothorax especially. The same thing occurs in the ventricle. The highest portion of the ventricle will have the air in it, and that makes it difficult to make antero-posterior studies of the ventricle in order to thoroughly outline the ventricle. If the fluid fills the lower two-thirds you have the air bubble on top, you must rotate the patient around laterally, then upside down to put the air in the different parts of each ventricle to study its outline.

The one plate the doctor showed with air in the fourth ventricle was made in a child in which we held the child upside down, which allowed the air to flow through the aqueduct of Sylvius into the fourth ventricle. In the case of hydrocephalus, if obstruction was not present, we would have also had air in the spinal meninges. In the work Dandy is doing he injects air into the spinal cord the same as you would do a lumbar puncture, and the air rises naturally to the highest level and flows up the cord and into the ventricle. To date we have not done any work of that type.

DR. CHARLES E. DOWMAN, Atlanta (closing): Some gentleman asked me as to the mortality in this class of cases. The mortality is high, but there are some cases that can be cured, and you have to deal here

with an absolutely hopeless condition, and if you can get the cases early and study them carefully—and incidentally I operate on these cases under local anaesthesia—you can accomplish much good. It is surprising what you can do under local anaesthesia, and this in itself rules out to a certain extent a great margin of danger in the use of a general anaesthetic. The reaction is very great after placing one of these tubes in the aqueduct of Sylvius, but you can get some recoveries and absolute cures which is encouraging. But you must consider the fact that in these cases you are dealing with a condition that has been considered absolutely hopeless.

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### **AN ORTHOPEDIC GYMNASIUM, IT'S NEED AND PURPOSE.\***

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Theodore Toepel, M.D., Atlanta, Georgia.

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I consider my paper at this time to be something out of the ordinary; not that it will announce a new scientific discovery, but it is an appeal to support a new venture here in the South, at the same time presenting a review of the physiological and pathological facts bearing upon the need of an orthopedic gymnasium.

Why is such an institution needed here? Because doctors either feel not qualified, or will not take time to do the work at their offices or to supervise the corrective exercise at the home of the patient. In this particular work, directions given by doctors to be carried out at the home of a patient are in rare instances conscientiously followed. To receive the greatest benefit the patient must do this corrective work under the direct supervision of one who is specially equipped for the work.

That this physio-therapy, which includes massage, passive and active exercises, helio-therapy, electricity, heat and mechanical vibration, is recognized by the medical profession is proven by the fact that it has been adopted by the army and navy, and it can be seen at every army hospital, where full

consideration is given to it. The value of this therapy has especially been recognized and made full use of during and after the late war.

Because the physician in private practice has overlooked or neglected to recognize the value of this therapy, he has encouraged the development of quack specialties which we are now trying to legislate out of the state, at the expense of a great deal of money, time and worry. Support this physio-therapy, learn its legitimate advantages and limitations, and thereby discourage the unprofessional practices which we are trying to eradicate.

If we recall our physiology and review the chapter on muscle, we will find that muscular tissue is 44% of the total body weight, consisting of about 500 muscles, and every muscle at every contraction and relaxation is a throbbing heart, squeezing its vessels empty while in motion, and relaxing to allow them to fill up anew. We must realize what a tremendously beneficial influence can be brought to bear on the general condition of the whole body by making proper use of the physiology of exercise. By concentrating our efforts on groups of muscles that are undeveloped, either by passive or active exercise or by using the electric contractions, just as the case may require, a quicker return to a physiological condition will take place than if the subnormality were left to take care of itself.

Passive exercise improves the nourishment of the muscle-cells by forcing out the products of fatigue and keeping them bathed in a constantly renewed stream of arterial blood.

According to Mosso of Turin, and confirmed by Sir Lauder Brunton, blood vessels are substantially enlarged in the active muscle after contraction, and during contraction itself the interchange of products between blood and muscle is also accelerated; even the actual nourishing power of the blood is augmented by increased activity. It has been proven by Hawk that in the various forms of active muscular exercise, the num-

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\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



ber of red corpuscles increases on an average of 16.8 per cent.

The part of passive exercise is one of relief to the nervous system, for the nutrition of the muscles may be maintained without the expense of nervous force required to make them contract, and massage acts on the central system through the nerves of sense, stimulating or soothing according to the nature and amount of manipulation.

The advantages of both active and passive exercises in the treatment of pathologic conditions depend on their power to change anatomic structure and to stimulate physiologic function.

In a sprained or disabled joint the circulation is subnormal and the process of repair is delayed on account of the enforced immobility of a structure whose natural function is movement. Massage is the most valuable means of hastening recovery in such cases. The swelling and tension so characteristic of a recent sprain can be quickly absorbed by gentle and careful massage, accompanied by elastic pressure and the application of heat between the treatments.

I have called your attention to the use of physio-therapeutic measures in the treatment of fractures, at the last meeting at Macon, and will not tire you with any repetition of it at this time, except to impress upon you the invaluable use of these measures to secure functioning joints.

A subject to which the physician who does abdominal surgery has not paid the necessary and deserving attention, is the contractile power of the abdominal muscles. Many an otherwise successful operation has come to naught by lack of attention to this contractile power of the abdominal muscles. Putting these muscles in proper shape before an operation is as important as restoring the lost muscular tone and thereby hastening recovery after an operation. This latter is not accomplished by advising the patient to wear an abdominal support, but the ideal treatment is to strengthen the weakened abdominal muscles by physio-the-

rapeutic measures and to wear a support between treatments.

The whole struggle of man is to establish and maintain the upright posture by the constant extension of the body, and to do this he must overcome the tendency to flexion caused by gravity and occupation, for the entire range of acquired deformities such as flat foot, round shoulders, flat chest, irregular development, and fatigue scoliosis, are essentially occupation disorders, associated with the maintenance of the erect position, first, of the muscular system; second, of the ligaments; and finally, in severe cases, of the bones themselves. These defects are caused most frequently by long-continued faulty positions in the growing child, and it is to the development of the weakened and overstrained muscles, to the stretching of contracted ligaments, and to the re-education of proper sitting and standing positions that we must look for the greatest curative effects in these disorders.

Exercises of strength are to be chosen for the correction of postural faults, and their selection must be carefully made, for the weakened groups must be isolated for action, so that general fatigue may not supervene before the full therapeutic effect is obtained.

In certain disorders of the general circulation, with symptoms of heart weakness, like breathlessness and oedema, complicated by obesity, special exercises of strength, in the form of simple gymnastics, duplicate resisted movements, and the passive manipulations of massage, are used successfully even in cases showing loss of compensation.

For the myriad derangements and diseases of the nervous system, physio-therapy in some of its many forms is constantly employed. In paralysis, massage preserves the nutrition of the muscles and prevents contractures by kneading and stretching.

In cases where no lesion can be found, but where the pulmonary tuberculosis tendency is shown by the history of exposure to infection, by family history, or by the formation of the chest, much good is done by exercise, accompanied by training of the respira-



tory powers. Deep breathing is a muscular act capable of education, and the capacity of the lungs or mobility of the thoracic walls can be increased, as well as the strength of any other part of the muscular system, while the general circulation, the skin, the appetite, and the digestion all share in the heightened activity, and healthful sleep is insured by the resultant moderate fatigue.

By calling your attention in the foregoing statements, to many legitimate uses that physio-therapy has in medicine, I trust that in the future you will recommend to your patients this form of treatment, when so indicated, and retain them as patients and not allow them to drift into the hands of fraudulent practitioners with whom the regular physicians are constantly at odds.

—78 Forrest Avenue.

#### Discussion on the Paper of Dr. Theodore Toepel.

DR. GEORGE M. NILES, Atlanta: Dr. Toepel has read a paper of very great interest in many ways, one which should be of interest to the surgeons and orthopedists, and I wish to discuss one or two phases of it which interest me. In the first place, along the line of the aid that he can give us in these flabby women with relaxed abdominal parietes and general splanchnoptosis. They come in with their weight reduced, with a feeling as though they want to drop over all the time. They have poor appetites, and practically all of them are constipated. Much of that is due to the general ptosis whereby all the abdominal viscera are crowded down into the pelvis and are just like two or three men trying to work in a narrow space in a well. They get into each other's way. They cannot eat well. The progress of the intestinal current is not moved along in an orderly and proper manner. Abdominal supports are a great aid, and later on, if we can push in the cushion of abdominal fat it will exert a great aid. In the meantime if we can give them any form of exercise, which will strengthen and tone up these abdominal

muscles, we have greatly helped the situation.

Sedentary people, whose general musculature is poor, and whose digestion and nutrition are bad, get great help if we can tone up these muscles by exercise and thus exert a beneficial influence over the whole bodily economy.

I trust Dr. Toepel's efforts will be encouraged.

DR. THEODORE TOEPEL, Atlanta (closing): I want to thank the gentlemen for their discussion and wish to emphasize one point that Dr. Niles brought out, namely, abdominal support or any other kind of support. It has been found in recent years, as I stated in my paper, that the physiologists taught it centuries ago, that it is by exercise we overcome weakness and not by support. Whenever you apply a support anywhere you will weaken that structure underlying the support. Sometimes a support is necessary, but it should be worn in conjunction with exercise to strengthen the muscles supported.

When you are able to bring up the muscle tone you can get along without a support eventually. Exercise or muscle function is the life of any muscle in the body. It supports the functioning power of the body. This is a big field. Forty-four per cent of the total body weight is muscular tissue. We should give credit to these new discoveries, and while the little glands in our bodies are supposed to be so wonderful, we should not forget that nearly half the body weight in muscle also requires consideration. If you overlook that, you are going far astray in restoring some of the weakened conditions that you are now trying to remedy. Do not go to the extreme. Keep the happy medium.

## THE ILLNESS AND DEATH OF NAPOLEON \*

Walter R. Holmes, M.D.

Instructor in Gynecology, Emory University,  
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On May 5th, 1821, just one hundred years ago, Emperor Napoleon died, an exile upon the island of St. Helena. Although we may not admire Napoleon, the man, his despotic pride, his insatiable ambition, the many acts of cruelty with which his name is stamped, we cannot help but be fascinated by the history of his life. Napoleon's name fills more pages of the world's solemn history than that of any other mortal. Every phase and incident of his life has furnished material for books dealing with his career and character, his victories and defeats, his views on politics, religion, love, the kind of clothes he wore, the food he ate, and where and when he ate it. No phase of his life, however, presents more intense human interest than the final drama enacted on St. Helena during his last illness and death.

It is pathetically tragic how often Kings and Emperors in the circumstances of their death are less fortunate than their meanest subjects. Macaulay says speaking of the death of Charles II: "The fourteen doctors who deliberated on the King's case contradicted each other and themselves. Some of them thought that his fit was epileptic and that he should be suffered to have his dose out. The majority pronounced him apoplectic and tortured him during some hours like an Indian at a stake. A loathsome volatile salt extracted from human skulls was forced into his mouth. Then it was determined to call his complaint a fever, and to administer doses of bark. One physician, however, protested against this course and assured the Queen that his brethren would kill the King among them."

No less fortunate were the circumstances surrounding the death of Emperor William I of Germany. We see the spectacle of doctors and courtiers crowding about his bed,

until the patient, his reason already clouded by the shadow of death, cried out "Zu viel menschen." (Too many people!)

As Louis the 14 died, Fagon the physician and Mareschal the surgeon were wrangling over the treatment that should be given the king.

In the death of Napoleon, there is none more tragic in itself and more shameful in its circumstances. Political considerations were largely responsible for the medical treatment which he received. The British Government refused to believe almost to the last that the Emperor was critically ill and the medical attendance which was supplied was of the most unsatisfactory kind. His case was never correctly diagnosed. Much of the misconception as to the true nature of the illness of Napoleon arose from the disagreement between the two hostile factions which existed on St. Helena. Dr. Chaplin says "On the one hand, the British government, and its instruments were ever anxious to proclaim to the world that Napoleon was in good health and was enjoying, as far as was compatible with his position, the bracing airs and salubrious climate of St. Helena. On the other hand, those surrounding the Emperor insisted that the climate of St. Helena was slowly but surely sapping his strength and that as the result of his residence on the Island chronic hepatitis had laid its hold on him and numbered his days."

Such modern authors, as Lord Rosebery and M. Paul Fremieux writing at a time when the passions of the period have subsided, have pronounced the verdict that,—

1. In his last illness, Napoleon was attended by a series of incompetent physicians, who formed a wrong opinion of the case and applied disastrous remedies. 2. That Napoleon died of cancer of the stomach, the Emperor himself being the only one to form an approximately accurate diagnosis.

Of the past medical history of Napoleon prior to his exile, we have fragmentary knowledge. That Napoleon enjoyed good health during the early period of his life is evidenced by the strenuous life which he

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



lead. His active campaigns, extending over a period of 20 years, in varying climates from the scorching heat of the Egyptian Expedition to the extreme cold of the Russian campaign, did not seem to undermine his iron constitution. There are a few interesting facts recorded concerning his past medical history. One peculiarly interesting fact was an habitually slow pulse. Corvisart states that his pulse rarely beat over 50 per minute. Napoleon himself said that he had never been conscious of the beating of his heart and doubted if it did. It has also been recorded that he occasionally had attacks of vomiting followed by lethargy and stupor amounting to actual unconsciousness. These attacks came on usually after prolonged physical exertion, mental strain, and outbursts of temper. Because of these attacks, has arisen the statement that Napoleon suffered from epilepsy.

Dr. Chaplin who has made a careful study of the medical history of Napoleon affirms that there is no evidence worthy of the name to support the contention that Napoleon suffered from epilepsy. He says, "Gusts of passion and severe vomiting followed by lethargy are poor facts on which to brand a man with the stigma of epilepsy. Rather, Dr. Chaplin thinks that the slow pulse and occasional attacks of stupor verging on unconsciousness would fit in with our newer conception of cardiac pathology and that probably Napoleon suffered from partial or complete "Heart Block."

It would appear, therefore, that prior to his departure for St. Helena, Napoleon had enjoyed remarkably good health, without any indication of the commencement of the grave disease which five and a half years later was to cause his death.

Napoleon arrived at St. Helena, on board the "Bellerophon," October 17, 1815. (St. Helena is an island approximately 4x10 miles situated in the South Atlantic ocean off the west coast of Africa.) During his exile at St. Helena, Napoleon was attended by four physicians, O'Meara, a British naval surgeon, Stokoe, the surgeon of the English ship the "Conqueror," Antommarchi,

chi, a young Corsican anatomist, and Arnott, British medical officer of the 20th Regiment, stationed at St. Helena. In the limited scope of this paper, it would be impossible to take up in detail, the development of symptoms and treatments administered by the above mentioned four doctors during their periods of observation of the Emperor. As already intimated, the medical care of Napoleon was not of the best. In defense of the physicians it must be said that Napoleon was a difficult patient to read. He professed a profound disbelief in the art of medicine. Even with such men as Corvisart, he used to maintain that medical care was futile. Every drug administered was obstinately refused and a satisfactory reason demanded for every symptom and every step in the treatment. His faith in medicine was not exalted by the care which he received at the hands of his attending physicians. For example, Antommarchi, a few weeks before Napoleon's death insisted on administering to him  $\frac{1}{4}$  gr. of tartar emetic. The unfortunate patient rolled in agony on the floor. One may well imagine the suffering induced by prolonged wrenching in a patient whose stomach was extensively ulcerated by a far advanced carcinoma. Napoleon called Antommarchi an assassin and declared that he would never see him again. His dislike of the Corsican physician was so intense that alone of all his attendants Antommarchi is not mentioned in the Emperor's will.

During the first two years of his exile on St. Helena, Napoleon enjoyed fairly good health. His sedentary habits, however, during this period brought in its train laziness, peevishness, and corpulence. It was not until September 30th, 1817 that we have recorded the first symptom pointing to the location of the lesion which was to cause his death. On that day, Napoleon complained for the first time of a dull pain, a heaviness, a sensation of heat in the right hypochondrium and numbness and pain in the right scapular region. From this time to his death



Napoleon was never completely free from the symptoms just described.

To quote again from Dr. Chaplin:

"The chief symptoms of the illness of Napoleon previous to its final stage were:

1. Persistent pain situated in the right hypochondrium.

2. Pain, either dull or lancinating in character, fixed in the right scapular region and in the right breast.

3. Nausea and vomiting. Coffee ground vomitus.

4. Constipation at times alternating with diarrhoea.

5. Flatulent distention of the abdomen.

6. Febrile disturbance attended with profuse sweatings.

7. A more or less constant dry cough.

8. Increased pulse rate.

9. Coldness of the extremities.

10. Loss of appetite.

11. Marked and increasing prostration."

Although many of the above mentioned symptoms pointed to a lesion in some part of the alimentary tract, more especially the stomach, none of the physicians in attendance guessed at the true nature of his trouble, but persisted either in their diagnosis of hepatitis or in minimising the seriousness of the Emperor's illness. Arnott eight days before Napoleon's death assured the British authorities that he was only suffering from hypochondriasis.

Napoleon himself made a shrewd guess at the nature of his disease. His father had died at the age of 39 of cancer said to have been situated in the stomach. The Emperor frequently foretold that he would die of the same disease. Often during his illness he would place his hand over his stomach and say with a groan, "O mon pylore! O mon pylore!"

During the years 1820 and 1821 there was increasing infirmity and accentuation of the symptoms already mentioned. It would be useless to recount the daily reports of the doctors during this period which gives the clinical picture of a patient slowly dying of

a malignant disease; emaciation, loss of appetite, obstinate constipation, increased gastric distress, persistent nausea and vomiting. During periods of remissions of symptoms, the Emperor would go for short walks, horse back riding, or amused himself in the cultivation of his garden. However, during most of the time he was confined in his room at Longwood. On April 14 and 15th, Napoleon, realizing that his days were numbered, summoned Montholon and Marchand and dictated in clear terms his last will and testament. In addition he dictated the message which should be sent at his death to Sir Hudson Lowe, the British governor of the island whom he so intensely hated.

"Monsieur, the Governor, Emperor Napoleon is dead, after a long and painful illness. I have the honor to inform you.

"He has authorized me to communicate with you and ask that you grant his last wishes. Will you make known what are the regulations prescribed by your government for the transportation of his body to Europe?"

"On April 28, Napoleon talked incoherently and became comatose. On May 4th, the pulse rose to 110, the patient was unconscious, the motions were passed involuntary, risus sardonius was present, and the eyes were fixed. Napoleon remained in this condition until eleven minutes to six on the evening of May 5th, 1821, when he expired."

### Post Mortem Examination

On the day following his death, May 6th, 1821, at 3 p. m., the post-mortem examination was performed by Antommarchi in the presence of the surgeons, Shortt, Arnott, Burton, Livingstone, Mitchell, Henry and Rutledge. The dissection was carried out in a green painted and crudely lighted room of Longwood. There are three accounts of the autopsy in existence. The official report drawn up and signed by Shortt, Arnott, Burton, Livingston, Mitchell, Henry and Rutledge, the report of Henry and the detailed and excellent account of the autopsy by Antommarchi.

The following are abstracts taken from the

notes of Henry, the Official Report, and from the record written by Antommarchi:

Henry: "The body measured after death 5 feet 10 inches.

"The face presented a remarkably placid expression, indicative of mildness and even sweetness of disposition, which afforded a most striking contrast with the active life and moral character of the deceased. The head was not opened, it was of large size and must have been disproportionate to the body, even in youth. The whole surface of the body was deeply covered with fat. The skin was noticed to be very white and delicate, as were the hands and arms. There was scarcely any hair on the body, and that of the head was thin, fine and silky."

#### Official Report.

"On cutting the thorax, a small adhesion was observed between the left pleura and the pleura costalis. About three ounces of reddish fluid were contained in the left cavity and nearly eight in the right. The lungs were quite normal."

Antommarchi: "The pericardium was healthy in appearance and contained about an ounce of fluid citron in color. The heart which was a little larger than the fist of the subject exhibited, although sound, a more than usual amount of fat at its base and on its ridges. The ventricles and auricles were healthy, but pale and quite empty. The orifices did not show any notable lesion."

#### Official Report.

"Upon opening the abdomen, the omentum was found remarkably fat, and on exposing the stomach the viscus was found the seat of extensive disease; strong adhesions connected the whole superior surface, particularly about the pyloric extremity, to the concave surface of the left lobe of the liver; and on separating these, an ulcer which penetrated the coats of the stomach was discovered one inch from the pylorus, sufficient to allow the passage of little finger. The internal surface of the stomach to nearly its whole extent was a mass of cancerous disease, or scirrhus portions advancing to can-

cer; this was particularly noticed near the pylorus. The cardiac extremity for a small space near the termination of the oesophagus, was the only part appearing in a healthy state. The stomach was found nearly filled with a large quantity of fluid, resembling coffee grounds.

"The convex surface of the left lobe of the liver adhered to the diaphragm, but with the exception of the adhesions occasioned by the disease in the stomach, no unhealthy appearance presented itself in the liver."

Antommarchi:

"The bladder was empty and very contracted, containing a certain amount of gravel mixed with definite calculi. Numerous red patches were scattered over the mucous membrane of the bladder and its walls were in a diseased state."

The findings at autopsy of the evidence of a chronic cystitis and calculi in the bladder are of interest as Napoleon was known to have suffered from dysuria which at the battle of Borodino was so severe that riding caused considerable pain and he had to be placed under the influence of opium.

All three reports of the autopsy agree in assigning the cause of death to carcinoma of the stomach. From the description of the pathological specimen and the duration of symptoms, it seems highly probable that the carcinoma was superimposed on a chronic gastric ulcer.

In the museum of the Royal College of Surgeons of England are two specimens of small intestine, catalogued, "Incipient Fungous in the Glands of the Intestine, Napoleon; Barry O'Meara to Sir Astley Cooper." A great deal of discussion has arisen as to the genuineness of these specimens. O'Meara left St. Helena in 1818, three years before the death of Napoleon. The body of Napoleon was carefully guarded before burial, and it seems highly improbable that any part of his intestines could have been removed. For these reasons, the compilers of the Museum Catalogue express their doubts as to the genuineness of the specimens. Professor Keith, Conservator of the Museum, in a recent paper gives as his opinion that



the above mentioned specimens are authentic, and were removed secretly from the body of Napoleon by Antommarchi and given to his friend O'Meara. This point will perhaps never be settled. It is of interest to know that these specimens of intestines when examined histologically show the pathological changes found in Malta fever; a hypertrophy of the lymphoid tissues of the body, notably Peyer's Patches in the small intestines. If these specimens are genuine, it throws new light on the illness of Napoleon and proves that in addition to carcinoma of the stomach, he may have suffered from Malta fever, the diagnosis made by his attending physicians.

Napoleon was buried on St. Helena, where he remained entombed until Oct. 16th, 1840 when the British government performed an act of reparation by giving up the body of the Emperor to its rightful owners, the French nation.

In a funeral procession in which the crowned heads of Europe paid tribute, with regal pomp, he was laid to rest on the banks of the Seine. Here his body lies beneath the gilded dome of that most beautiful of mausoleums which someone has compared to a "magnificent helmet, fit covering for the first captain of the age."

—746 Peachtree St.

### **SOME OBSERVATIONS ON THE LIFE OF JOHN HUNTER.\***

Frank K. Boland, M.D., Atlanta, Ga.

The crowded life of the average physician leaves him but little time to consider the history of medicine and to study the biographies of the men who have made it. Yet an occasional review of such matters is interesting and stimulating. It was one of Sir William Osler's hobbies, and no one in his time did more for it, both in adding to the literature by his own researches and writings, and by arousing others to follow his example.

Often the real achievements of a man's

life are overlooked, and the principal things concerning him which are handed down to succeeding generations are comparatively trivial incidents and anecdotes. The history of the profession does not contain a man who added more to scientific medicine than John Hunter, and yet the majority of us, who profit daily from his vast labors, knows but little about the nature of his contributions. The story that he was a gay young man and consorted with disreputable companions is well-known. That he snapped his tendo Achilles while dancing at the age of thirty is an incident remembered by every medical student. But does every student know that this event led Hunter to study tendon regeneration and devise the operation of tenotomy? The tendon should be named after Hunter instead of Achilles who did nothing to deserve the distinction.

One of the most often quoted sayings of John Hunter is the one we read in Osler's text-book in the discussion of angina pectoris, that Hunter, a victim of the disease, declared that "his life was in the hands of any rascal who chose to annoy and tease him." From this description we infer that the old Scotchman possessed a fiery temper, which is true, and which no doubt shortened his days. But little has been said of the good side of his character, his kindness to his students, and his leniency toward indigent patients.

Students of anatomy soon learn of Hunter's canal, but few appreciate the significance of the name. Some few have heard of the Hunterian chancre, but do not know why it is so-called. We also know that in England there is a museum named after this man, and occasionally we see reference made to the Hunterian oration. These things tell us that John Hunter must not have been an ordinary mortal, but what is the real source of his great reputation? Why does his name rank so high in medical science, even in the second century after he lived and did his work?

It was to answer these questions that this

\* Read before the Medical Association of Georgia, Rome, Ga., May 4, 5, and 6, 1921.



brief study was undertaken. A casual reference to the literature of biography will show at once that there is no excuse for not being well posted on John Hunter. The paper which first excited the interest of the writer is the splendid one by Dr. C. W. G. Rohrer, of Baltimore, entitled "John Hunter: His Life and Labors," which appeared in the John Hopkins Hospital Bulletin for January, 1914. The Encyclopedia Britannica contains an unusually complete sketch. The classic description of Hunter, by Drewry Ottley, appears in the first volume of Hunter's complete works, edited by Palmer. Two of the best stories of his life are to be found in Gross's "John Hunter and His Pupils," and the "Masters of Medicine" series, by Stephen Paget. In the mind of the writer the very best memoir of all is that by the late lamented James G. Mumford in the first volume of Keen's surgery. These articles were used freely in the present observations, and are recommended to be read by all students of medicine who would become acquainted with the details of the life of one of the most productive and fascinating men whose name adorns the pages of medical history. Only a fragmentary account is attempted here.

While authorities on medical biography rank Hunter as one of the greatest surgeons of all time, his position perhaps is not this high in the popular mind because no single great outstanding discovery attaches to his name. For Harvey the discovery of the circulation of the blood made his name immortal; for Jenner, a pupil of Hunter, the discovery of vaccination; for Pasteur, the enunciation of the microbe theory; for Lord Lister, the practical application of this theory to the revolution of surgery; and for Crawford W. Long, the discovery of anesthesia. The most conspicuous single achievement of John Hunter was his use of the knowledge of the anastomosis of blood vessels in the operation for the cure of aneurism. But such a contribution as this, as valuable as it is, is of such comparatively

limited application that it could not be classed with Jenner's or with Lister's discoveries.

So we must look deeper for Hunter's claim to immortality. And we learn that he is entitled to it through the fact that he founded a new science, of inestimable benefit to the human race—the science of surgery. Before his time surgery was merely an art. He made it a science as well as an art by the application of physiological reasoning and pathological investigation. Before his time this branch of healing was in the hands of the barber surgeons and bone-setters. The legal separation of the surgeons and the barbers took place in England in 1744. Hunter could have had nothing to do with this event, however, because he went to London only 1748, at the age of twenty, to begin the study of anatomy under his celebrated brother, William Hunter. It was during the four decades following that John Hunter did far more than any other man to establish surgery upon a scientific basis.

Capable surgeons existed before his day, and were his contemporaries, such as Cheselden and Percival Pott, in England, his teachers, and Chopart, and Desault, in France. These men probably excelled Hunter as operators. While he was thorough and painstaking, he was not considered a brilliant operator. He was not over-eager to use the scalpel, but could not be accused of being timid. It is related of him that he once removed successfully a very large tumor from the neck which many famous London surgeons had pronounced to be inoperable.

Hunter's renown does not rest upon his being a popular doctor nor upon the accumulation of a large fortune from his practice. Many surgeons before and since his time have amassed great wealth from their practice, and their names are now forgotten. The routine practice of medicine for gain was obnoxious to him. He disliked for it to interfere with his dissection and other scientific researches. When disturbed

to make a call he would exclaim, "Well, I must go and earn this damned guinea, or I shall be sure to want it tomorrow." For many years the returns from his practice were meager. During his later life, however, his collections amounted to twenty or thirty thousand dollars annually. Yet he spent so much for anatomical and zoological specimens for his museum that when he died it was found that he had left an estate of only about six thousand dollars besides the museum. His executors finally sold the latter to the government for \$75,000, although it had cost Hunter \$375,000.

In other words, John Hunter thought more of medicine as a science than as a means of making money, and it is well for posterity that he did, though probably his family did not appreciate this fact during his lifetime. Would he have accomplished more if he had been associated with a Rockefeller Institute?

He was not an educated man in the ordinary sense of the term. As Ben Jonson wrote of Shakespeare, "He knew little Latin, and less Greek." His lack of schooling was often a handicap to him in his writings, a circumstance which he spoke of with regret. He was not a student of books and frequently he made discoveries which had been made and recorded before. He would not be aware of the fact until his attention was called to it by his pupils. With supreme self-confidence he thought more of his own observations from nature than he did of all he could learn from the writings of other men. He was a poor lecturer, not to be compared with his cultured, scholarly brother, William.

There were two keys to John Hunter's greatness: an unlimited capacity for work, and a marvellous ability to observe. The high-sounding description, "indefatigable," fitted him remarkably. Up at five o'clock in the morning, dissecting until nine, when he ate his breakfast; then seeing patients, visiting the hospital, performing autopsies, preparing and delivering lectures, writing

down observations, working, working until twelve and one o'clock every night. His keeping of careful notes and his punctuality in all things are examples worthy of emulation today.

For his own sake he should have played more, though we might have suffered today. The result of such a strenuous life was that John Hunter wore himself out and died of arterio-sclerosis at the comparatively early age of sixty-five. It is possible that his end was hastened by syphilis, which he is supposed to have contracted accidentally while inoculating himself with gonorrhea at the age of thirty-nine. The presumption is that his was a urethral chancre. His study of venereal diseases resulted in the differentiation of chancre from chancroid, when he gave his classic description of the hard chancre. However, he confused syphilis and gonorrhea, which were not distinguished from each other until 1838, by Ricord.

Hunter's first work was done in anatomy, and he insisted that every surgeon should first become a good anatomist. His specimens on exhibition today bear eloquent testimony to his matchless skill as a dissector. Among his discoveries in this science was tracing the ramifications of the olfactory nerves upon the mucous membrane of the nose and the discovery of additional branches of the trifacial nerve. With his brother he traced in the gravid uterus the arteries of the uterus to their termination in the placenta. He was the first to demonstrate the function of the lymphatic vessels as absorbents in the human economy. Before this time absorption was supposed to take place through the veins. He first described intussusception, and first clearly explained the descent of the testes in the fetus.

In order to perfect the existing knowledge of human anatomy and physiology Hunter did a tremendous amount of original work in the anatomy and physiology of the lower animals, to such an extent that Gross declares that he was not only the founder of scientific surgery<sup>1</sup> but the father also of



scientific zoology and comparative physiology. He wrote an essay on post-mortem digestion of the stomach, in which he explained that phenomenon as a result of the action of the gastric juice. He told how birds breathe and fishes hear. The low state of dentistry in his time prompted him to study the teeth, and his essays on their development and diseases remained an authority for three generations. He described the process of exfoliation by which a dead piece of bone is separated from the living, in other words the formation of the sequestrum.

By Hunter's experiments upon skin-grafting Sir William Fergusson, in the Hunterian oration for 1871, claims that he anticipated by a hundred years the scientific data on which the present system of human grafting is conducted. In being one of the first surgeons to teach that deep excision of wounded structures is the most successful method of operation he anticipated by one hundred and fifty years the debridement of the late war.

He served three years, 1760-1763, as staff surgeon in the seven years war with France, and here collected the data for his best-known book, "Treatise on the Blood, Inflammation and Gun-Shot Wounds." The first edition of this work appeared in 1794, one year after his death. Three other editions were published, the last one in 1828, showing the esteem in which the book was held. This volume, like most of the author's, was wholly original, and was not a collection of the views and thoughts of other men. In 1790 Hunter was appointed Surgeon General of the Army. He had almost every possible honor and degree conferred upon him, both at home and abroad, but was never knighted.

In all of the work of this genius it will be seen that he was ahead of the times. The result was that while he commanded the respect of his contemporaries, he was not popular among them, and but few of them became his followers. Mumford says: "No

great man's contemporaries ever become his followers. Maturity does not seek novelty. The prophet must have young men around him if his words are not to fall fruitless. Were progress to depend upon a man's contemporaries, we should be in the stone age still. New life, new blood, fresh enthusiasm and vigor are needed for advance." Among John Hunter's pupils were Edward Jenner, probably his favorite, John Abernethy, Sir Astley P. Cooper, Sir Everard Home, and other men better known in England than here, and Philip Syng Physick, of Philadelphia, called the Father of American Surgery—a brilliant coterie who profitted from the instructions of their master with results scarcely to be rivalled by the pupils of any other teacher of medicine.

In 1785 Hunter made the observations and performed the operation for which he is best known to students of surgery—Hunter's operation for aneurism. He happened that year to be studying the mode of growth of a deer's antlers. After tying one of its carotid arteries and observing that it turned cold, he watched to see how long it would take to shed. To his surprise instead of shedding he found two weeks later that the antler was again warm and vigorous. Supposing the ligature might have slipped he had the animal killed and learned that the ligature had held, but that through anastomosis and enlargement of small vessels above and below the occluded part, normal circulation had been restored to the antler. From this observation he was led to the conclusion that "under the stimulus of necessity" the smaller vessels are capable of rapid increase in size to perform the function of the larger. This experience gave birth to the idea of ligating the femoral artery in the aponeurotic space now known as Hunter's canal, for the relief of popliteal aneurism.

With all his conceit Hunter recognized the shortcomings of medicine in his day and remarked repeatedly, "We are only beginning to learn." Quite different was the



feeling of the Frenchman, Ambroise Pare, who declared in the sixteenth century that nothing could be added to medical knowledge after he died. Much of Hunter's teachings and many of his methods have been displaced and improved in the hundred and twenty-eight years since his death, but the great principles of scientific observation and research which he laid down can never become extinct. Much of his work was fundamental work and was absolutely necessary for the steps which were taken by his successors. One of his axioms was, "Don't think, try; be patient, be accurate," advice given young Jenner, and apparently taken by him. The idea was not to try to explain a phenomenon by merely thinking it out, but to arouse one's self in to action, and experiment and observe as he did with such brilliant results.

All commentators of this great man have given him unbounded credit and praise for his achievements. Only one, Jesse Foot, in his *Life of John Hunter*, published the year after Hunter's death, attempted to disparage his character and his work. That this book has long since been forgotten and Hunter's name is still resplendent in the annals of medical history is strong evidence that Ottley's charge is true, that Hunter's enemies paid Foot four hundred pounds to write the attack. Ottley wrote of Hunter that "he was celebrated alike as a surgeon and as a naturalist, in neither of which capacities he has had many equals,—in his combined character, none." Such eoniums could be quoted without end. However, John Hunter was not infallible, and he made many mistakes. One of the most unfortunate events of his life, in which he was mostly at fault, was his bitter quarrel with his brother, William, over the priority of the discovery of the structure and circulation of the placenta. A breach between the brothers resulted which was not healed until three days before William's death.

In studying the life of John Hunter we are struck by his sincerity and honesty.

Frankness was a conspicuous trait in his character. He detested shams in all forms and was fond of exposing them. While the achievements of his life prove that he must have possessed wonderful imagination, he never published his theories as facts until he had demonstrated them. In other words there was nothing about Hunter which slangy America today calls "bull." He had no use for such a thing, and the reason was that he was absolute master of his subject. Having learned it from the ground up, and getting it from nature and not from the lips or writings of other men, he knew what he was talking about.

The Hunterian Museum, purchased by the British government and placed in the custody of the Royal College of Surgeons of England, contained nearly 14,000 specimens collected by Hunter, and is an imperishable monument to his industry. Among his specimens are physiological and pathological preparations in spirit, dry preparations, including bones, zoological preparations, fossils and monsters. The collection has been greatly increased since his time.

The Hunterian Oration, held under the auspices of the Royal College of Surgeons, was begun in 1811 by the executors of John Hunter, who were his kinsmen, as a mark of respect to the distinguished dead. It was held annually until 1853, since when it has been held biennially. Many noted members of the medical fraternity have been honored by being invited to deliver this address, which is made on Hunter's birthday, February 14th. Among these have been Abernethy, Benjamin Brodie, Quain, Paget, Speer Wells, Jonathan Hutchinson, Henry Morris and Godlee.

Garrison, in his *History of Medicine*, names Pare, Hunter and Lister as the greatest surgeons of all times. Should not the discoverer of anesthesia be added to this list? And why should we not have a Crawford W. Long Oration on his birthday November first, held under the auspices of this Association, of which he was a charter member?

The life of John Hunter should inspire us all to greater effort, keener observation and deeper research. If so wonderful a man were willing to admit that he was just beginning to learn, what treasures must there yet be hidden for us if we would only dig to find them? In spite of all that has been unearthed since his day, is our knowledge complete? Is the mortality of pneumonia much reduced? Have we found the cause and cure of cancer? Have the ravages of tuberculosis been relieved? Every generation cannot boast of a John Hunter. If there had been one in every generation since his day we would be much further along the road to the prevention of human sickness and suffering and death.

#### Discussion on the Paper of Dr. Frank K. Boland.

DR. ARCH ELKIN, Atlanta: I simply rise to compliment the Society on the splendid paper we have just listened to. It is not an easy matter for any man, even Dr. Boland, to prepare a paper on Hunter's work. From year to year more of this work should be done, but when a man takes up the life work of Hunter and presents it to us in such a splendid manner, which is particularly needed, I think the Society ought to compliment Dr. Boland for it. Of course, all of us know more or less about John Hunter, and it struck me, when I saw this title on the program, that it was unusual for an Atlanta surgeon to read a paper with such a title. However, personally I wish to compliment Dr. Boland on the manner in which he has dealt with the subject and for the vast amount of information he has given us regarding Hunter.

#### VITAL STATISTICS AND MEDICINE.

Stewart R. Roberts, S.M., M.D., F.A.C.P.,  
Medical School, Emory University,  
Atlanta, Georgia.

Moses was the first Director of the Census of the Children of Israel by special command of the Lord, with the condition that there should "be no plague among them when thou numberest them." David saw a pestilence, "and there died of the people from Dan even to Beersheba seventy thousand men." The stars above, our own hairs and steps and days, our very births and deaths

are all numbered. "All the world's a stage and all the men and women merely players; they have their exits and their entrances." Henry VIII in 1538 ordered all churches to keep true and exact records of all weddings, christenings and burials. "There is no exemption from the common lot, but all are bound by the same ailments and afflictions" with their fellows of all ages within the limits of incidence, race, geography and season. As Addison so wonderfully wrote, "The Bridge thou seest, said he, is Human Life; consider it attentively. They fell through one another, being quite tired and spent with so long a walk."

The data of vital statistics take account of the entrance, the walk on the bridge, the ailments and afflictions, the times of weariness and the falling through. Each verified fact and figure of this data is a contribution to the "treasury of physic." Statistics is not to be regarded as a new science but as a method of all science, in the accumulation of facts, tendencies and proved sources of true conclusions. "Science does not belong to 'a wicked and perverse generation,' but it does 'seek after signs' which in its own tongue it calls proof as distinguished from mere statement. One of the duties of the State Boards of health is to obtain medical and vital statistics. The collecting of such statistics is a true partnership which to be successful necessitates the persistent co-operation of all practicing physicians with the Director of Vital Statistics of the area served, be it the municipality, the county, the state or the nation. For just a little prompt paper work, the physician contributes in figures his experiences and reports his cases to this ever increasing knowledge of our science.

It is, therefore, appropriate to ask the importance and the value of such statistics to the Medical Man. What is his contributions worth in totals? Is it worth while to know the statistical pathology of his political area? Are the numbers of births and deaths valuable, the rise and fall of population? Is the registration and legal establishment of a birth of value to the individual and the



State? Is baby life worth accounting for? Is it worth while knowing how long people live and of what they die? Is medicine just a science, or just an art, or is it not rather both a science and an art and a great administrative function as well? Shall this practitioner of medicine, this artist of this science live clinically unto himself alone, or shall he by reporting statistically and persistently his cases, births and deaths become an essential in the function of government, a contributor to his science, a greater service in his art? Is he merely a practitioner or is he not a far better practitioner of higher and finer discernment and power, by naming what he sees, when he sees it and reporting the result of his services?

(1) Vital statistics are one of the very foundations of the medical man's reasoning and practice. They form the evidence from which he may deduce the findings in reference to marriages, births, morbidity, rates of sickness and disease, the causes of death and the actual and comparative health of communities and nations.

(2) Statistical analysis is used more and more in study, in writing and in clinical medicine. Kilgore has shown that from 1840 to 1920 the average per cent of quantitative or statistical articles in representative medical journals has increased from three per cent to fifty per cent. Sydenham was the father of clinical medicine and discussed the qualities of disease and based his therapeutics on his personal experience. Disease to him was a qualitative process, variable in the kind and degree of symptoms. Modern medicine has taken this qualitative idea and added the idea of disease as a quantitative process as well. Sydenham discussed the kind of measles and the symptoms in the spring of the year of 1670. The new medicine asks how many cases of measles were there—how many deaths, how many had pneumonia, and medical statistics properly reported and tabulated offer the only hope of answer.

(3) No man in medicine today can think with the larger vision and the higher bird's

eye view unless one phase of his thinking is in figures and statistics. For example, the baby was sick, and the doctor came and treated the baby but the baby died. This is a fact, a bereavement, a national loss. But of what did the baby die? What was done to keep him from dying? What was done in his community, in his home, in his state, long before this particular baby was born, to keep all babies from dying? How many babies die anyhow, at what age, and why do they die? Do certain communities have fewer deaths proportionately than the dead baby's community, and what preventive measures do they use? Quantitative medicine naturally inquires into methods of treatment and prevention and discusses results.

(4) Vital Statistics are tolling the miserable comment on Georgia that 58 per cent of deaths in this State in July and August, 1920, were children under ten years of age. In England in 1917, there were 64,483 deaths in children under one year of age. With such facts as these every doctor can enlist the ear of every mother and through the mothers more preventive medicine can be done. The woman as a voter embodies the future biologic and sociologic statesmanship of the country. She is the voter who will call upon the physician and the physician upon the Bureau of Vital Statistics for such biologic facts as birth rates, the deaths from syphilis, dangers to babies from impure milk, why typhoid fever is found in any given communities, hospitals and poverty, and many similar problems. In two schools in Bibb county 43 per cent of the children are from 7 to 30 per cent under weight. One-third of the children so far tested in America are 10 per cent under weight. We can see clearly now that applied pediatrics is only half the story; preventive pediatrics the other half. Prenatal care must develop. We must treat the baby long before his future parents reach maturity. It is education and energy versus ignorance and inertia. We need a health officer in every county and a physician who has legal entrance and authority in every school.

(5) Statistics teach the medical man how



cheap mothers are. Bacteriology, aseptic methods, the price of careless ignorance are well known, yet histories in private practice, insurance examinations with their family history section, and public statistics with one accord prove the frequency of deaths from puerperal sepsis and toxemias, all largely preventable. Think of fifteen thousand mothers dying in the United States in one year from these causes. Vital Statistics show that obstetrics is probably the most neglected field in medicine. Ignorant obstetrics is careless crime. Only two of fifteen foreign countries show higher death rates from childbirth. Such tables as the following show the distribution of mortality due to pregnancy and birth, and are the result of statistics.

Puerperal sepsis .....	31.7%
Puerperal albuminuria and convulsions .....	21.6%
Puerperal hemorrhage and other accidents of childbirth .....	25.5%
Other puerperal conditions .....	10.4%
Accidents of Pregnancy .....	10.8%

(6) Statistics teach the comparative frequency of different diseases, the great factors in mortality, and where to concentrate our studies, efforts and therapeutics. We hear much of encephalitis lethargica, but there are more cases of malaria in one county in Mississippi in one year than cases of encephalitis in the entire country. Tuberculosis, heart disease and nephritis, in order, are the three great causes of death in the United States. The first is decreasing and the last two increasing. Statistics here point to the tendencies of disease. Acute appendicitis is the most frequent acute disease and chronic appendicitis the most frequent chronic diseases in the abdomen. By the curves of possibility and probability we must bear in mind the appendix in abdominal diagnosis.

(7) As an administrative arm of the government, medicine as yet has hardly begun to function. In 1879 there were only nineteen State Boards of Health, largely then theoretical and with little practical applica-

tion. To the State Boards of Health and the Director of Vital Statistics medical men are turning for information. The doctor must co-operate by reporting; the Board of Health by condensing, concluding and publishing. The Director of Vital Statistics is the tabulating machine of the population, the keeper of the records of life and disease and death. He has hardly begun as yet. Every year will his duties and influence increase. We shall come to him to learn of industrial medicine, of the influence of occupation on life and the production of disease. We shall gain from him the results of therapeutics and the value of preventive medicine. From him pathological heredity will gain its greatest figures. The conditions of longevity, the harm or harmlessness of a habit, the value of pre-nuptial medical examinations, the venereal prevalence, the frequency, mortality and localization of cancer, the relative health of rural and urban population, the name and location of healthy and unhealthy communities—for all these and many more facts will the medical men look to the keeper of records.

We are in the midst of the greatest functioning and flowering of medicine and public health the world has ever known. Medicine holds the keys to human happiness and progress and safety. It is no longer just physician and patient, for medicine includes these and public health and preventive medicine, the medical profession and the public. All these with one accord look to Vital Statistics for information and guidance. In France in 1918 there were 400,000 births and 800,000 deaths not counting the deaths of soldiers, that is two deaths to one birth. Medicine has given to vital statistics the profoundest fact about the French people. At this rate with France it is only a question of time. Our population is chiefly urban for the first time, yet 70 per cent of our land is uncultivated and the average city family runs out in three generations. The unconquered field in medicine is the group of acute respiratory diseases, influenza, bronchitis, pneumonia, whooping cough and measles.

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Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****INVOCATION AT UNVEILING OF MONUMENT TO DR. ROBERT BATTEY.\***

"Almighty God, our Heavenly Father, thou hast shown thyself a Father unto us in the thought which thou hast taken for the supply of our needs in body, mind and spirit. Thou hast not forgotten any want of us men, the creatures of thy hand, the children of thy love, the subjects of thy redemption.

"Beside our beds of pain there is still the healing of thy seamless robe in the ministrations of godly and faithful physicians, in the soothing skill of the trained nurse; and in

every ingenuity of modern science employed in the healing art.

"To thee we give thanks for this supply of our need, a need brought about through our sin and those things which flow therefrom—our pain, disease and death.

"Upon this occasion, accept thou our thanks for that vast army of self-forgetful men who minister to us through the healing art,—men who, in the humble places, in the unheralded ranks of everyday heroism, in the army of the unobserved, toil all their lifetime in obscurity, falling asleep at last to 'leave no monument but a world made better by their lives.' For them, our Father, accept our thanks!

"But, our Father, just as thou hast made the tallest peak among mountain summits; just as thou hast made the sequoias among trees and the Himalayas among mountains, so hast thou made for the purposes of thy ministry of redemption—of healing of body, mind and spirit—lofty men who tower far above their fellows. For such an one we today give thanks to thee in this hour of solemn memorial. To name him is to praise thee, for he anew instructs us in that high humility whereby 'on God and God-like men we build our trust.'

"In him, thou didst set aglow the mystery of genius,—originality, initiative, unplummeted resources, courage, dauntless mental daring,—all of which he used in service as emulating thee the chief servant in the universe, who 'came not to be ministered unto, but to minister, and to give thy life a ransom for many.'

"To thee, therefore, O giver of every good gift, we offer here our thanks to him and for these his fellows and successors in service. Upon this occasion, we invoke thy fullest blessing. Breathe thy spirit upon us and into every heart here present.

"Breathe thou thy spirit, O God, upon these devoted men who seek to alleviate pain, promote comfort, lengthen and enlarge life, and, who through their science, their art, and their skill, at once express thy com-

\* Meeting of Medical Association of Georgia held at Rome, Ga., May 4-6, 1921.

passion and co-operate with all other laborers for the good of men, that, in 'that day,' man may be presented to thee, wholly redeemed in body, mind and spirit—'complete in Christ!'

"In His name, Amen!"

—ELAM F. DEMPSEY, D. D.,  
Pastor, First Methodist Church, Rome Ga.

COPY OF RESOLUTIONS PASSED BY  
THE CLASS OF PHYSICIANS CONSTITUTING THE INSTITUTE-CLINIC OF  
EMORY UNIVERSITY JULY 11 TO 16,  
1921.

WHEREAS, Emory University, the U. S. Public Health Service and the State Board of Health have very generously given to the physicians of the state a most valuable series of lectures and clinics on venereal disease control covering an entire week, which a large number of the physicians from all parts of the state have attended with great profit to themselves and to the people of the State, and

WHEREAS, This condition is of such vital interest to every one and demands at our hands the very best endeavor and cooperation of all concerned

RESOLVED, First, That through the meeting just held we have received a large insight into the real conditions and possibility of progress in the control of venereal diseases in the state.

RESOLVED, Second, That we pledge to the U. S. Public Health Service and the State Board of Health our very best endeavor in carrying on this work, both by personal work in the several fields of our labors and by our influence with our Representatives for an increase in appropriations to the State Board of Health, that said Board may more effectually carry on their campaign.

RESOLVED, Third, That we extend to Emory University, the U. S. Public Health Service, the State Board of Health, the Southern Dental College, the Fulton County Medical Society, the Hospitals of Atlanta, Ga., and all others who have contributed to the success of these lectures and clinics our

sincere thanks and assure each that an annual return of this splendid meeting would be appreciated by the physicians of the State.

## NEWS ITEMS.

### Meeting of Sixth District Society.

The Sixth District Medical Society of which Dr. A. H. Black of Thomaston is president, Dr. G. L. Alexander of Forsyth is Vice President and Dr. G. Y. Massenburg of Macon, secretary, met at Indian Springs on Wednesday, June 29th at Hotel Wigwam. We were quite fortunate in having with us Dr. E. C. Thrash, president, and Dr. A. H. Bunce, secretary, of the Medical Association of Georgia. The meeting was one of the most successful we have had in a number of years there being present about seventy-five doctors. The program was quite interesting and instructive and was well discussed. The program was as follows:

A study of Chronic Deafness—Dr. M. M. Stapler.

Encephalitis Lethargica, Symptoms and Treatment—Dr. J. M. McKenzie.

Syphilis, With Special Reference to Gastric Crises—Dr. R. L. Carter.

The Gall Bladder and Some of its Affections—Dr. Frank K. Boland.

Treatment of Severe Diabetes—Dr. J. E. Paullin.

Organization and Medical Progress—Dr. E. C. Thrash.

Litholapaxy, With Report of a Case—Dr. T. E. Blackshear.

Present Day Treatment of Cancer by Radium and X-ray—Dr. C. C. Harrold.

The Doctor—Dr. Lee Byron.

Report of two interesting cases: 1. Injured kidney; 2. Typhoid fever—Dr. O. H. Weaver.

The Significance of Various Heart Signs in Disease—Dr. R. H. Stovall.

Past and Present Medication—Dr. J. H. Bullard.



Resolution passed in re chiropractors. The Sixth District Medical Society opposes any bill licensing Chiropractors in Georgia, but amended it so that if any bill is passed that all Chiropractors be required to meet the same educational standard as physicians in the State.

George Y. Massenburg.

#### MEETING EIGHTH DISTRICT SOCIETY.

The Eighth District Medical Society held its annual meeting at Eatonton, Ga., August 10, 1921, at the High School Auditorium. The following program was carried out:

Invocation—Rev. E. W. Jones, Eatonton.

Address of Welcome—Hon. Jos. B. Duke, Eatonton.

Response to Address of Welcome—Dr. Dan H. DuPree, Athens.

Reading of Minutes of 1920 Session.

Address, "Medical Organization and Progress"—Dr. E. C. Thrash, President Medical Association of Georgia.

#### Scientific Papers.

The Early Diagnosis of Cancer (Illustrated)—Dr. H. M. Fullilove, Athens.

Typhoid Fever—Dr. W. D. Gholston, Danielsville.

"The Dead-Beat"—Dr. J. R. Robins, Si-  
loam.

Luncheon.

A Discussion of Some of the Newer Diagnostic Methods—Dr. Allen H. Bunce, Secretary Medical Association of Georgia.

"Some Aspects of Endocrine Therapy"—Dr. A. B. Patten, Athens.

"Kidney Study; with report of cases" (Illustrated)—Dr. Joseph P. Proctor, Athens.

"Our Milk Problem"—Dr. Linton Ger-  
dine, Athens.

"Pyelitis in Children"—Dr. B. C. Teasley, Hartwell.

"Rural Sanitation"—Dr. J. D. Apple-  
white, Athens.

#### SEVENTH DISTRICT MEDICAL SOCIETY OF GEORGIA.

The Seventh District Medical Society of Georgia met in the city of Calhoun at First Methodist church Wednesday, July 6th, 1921. Dr. Howard E. Felton presided over the meeting and Dr. M. M. McCord was secretary.

Invocation was led by Rev. C. S. Henderson.

Welcome on behalf of City of Calhoun—Col. J. G. B. Erwin.

On behalf Gordon County Medical Society—Dr. G. W. Mills.

Response—Dr. R. H. Wicker, Rome.

Under reports of committees the chairmen of Battey Memorial committee, through the secretary, reported a deficit in necessary funds to complete payments on monument the amount of \$116.00. All those who were present made contributions from one to five dollars each, which brought the balance down to about \$50.00. The secretary, Dr. M. M. McCord, is anxious to close the matter out and will welcome a small subscription from any physician who has not yet made a donation to the monument.

The following papers were read:

1. The Importance of County Health Work.—B. V. Elmore, M.D., Rome.

2. The Responsibility of the Physician in the Prevention of Cancer Mortality.—Trammell Starr, M.D., Calhoun.

3. Treatment of Hemorrhoids—R. M. Harbin, M.D., Rome.

4. Tuberculosis in Georgia—Chas. Hamilton, M.D., Rome.

After reading the above paper the essayist introduced a resolution calling upon the other eleven district societies of the state to join with the Seventh District in bringing pressure upon the general assembly of Georgia for an appropriation to be made sufficient to erect suitable quarters to properly care for the tuberculosis victims of the state, regardless of sex or color. The resolution was unanimously passed.

5. Infant Feeding in the Summer—M. M. McCord, M.D., Rome.

6. Report of a Post Operative Peritonitis in an Infant—R. C. Maddox, M.D., Rome.

7. Address—Medical Organization—E. C. Thrash, M.D., Atlanta.

8. Annual Address—H. E. Felton, M.D., President.

The Woman's Club of Calhoun served a most delicious luncheon to the visitors at the Club's quarters "the cabin." After lunch Dr. E. C. Thrash on behalf of the visitors, expressed the united appreciation of all the guests for the hospitality manifested by the Gordon County Medical Society and the Women's Club.

In the election of officers, Dr. C. F. McLain of

Calhoun was elected president, and Dr. J. T. McCall of Rome, vice president. Dr. M. M. McCord's term as secretary and treasurer will not expire until one year hence.

LaFayette and Cedartown extended invitations for next meeting. It was decided to meet in Cedartown in December and to meet in LaFayette next July.

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#### 24TH ANNUAL MEETING OF THE MEDICAL LIBRARY ASSOCIATION.

The 24th Annual Meeting of the Medical Library Association, whose membership includes all of the larger medical libraries of the country, and a large number of individual members, consisting of those interested in furthering medical library work, was held in Boston June 6, 7, 8, 1921. The business meetings of the Association were held in the Boston Medical Library. In addition to the address of the President the program contained the report of a committee on Standard Classification, and the system used in the Boston Medical Library, and this as explained by the Chairman, Mr. James F. Ballard, was adopted, as being the most practical solution for meeting the proplexing problems of classification. This was followed by a discussion on Reference Aids, which was opened by Mrs. Grace W. Myers, of the Treadwell Library of the Massachusetts General Hospital. An evening meeting, which was largely attended, was addressed by the President, Dr. John W. Farlow, of the Boston Medical Library. This was followed by an interesting paper, illustrated by lantern slides, by Dr. George S. Huntington, of New York City, entitled "Some historical facts concerning the catopiron of Johannes Remmelinus, and the superimposed anatomical plate during the early part of the 17th century." Following this Dr. Malcolm Storer, of Boston, read a paper entitled "Interesting medical medals."

In addition to the regular program visits were made to the various libraries in Boston. In each case the members of the Association were shown over the buildings and the various points of interest were explained. Visits were made to the Harvard Medical School Library, Boston Public Library, Harvard College Library, Treadwell Library and the Boston Athenaeum Library. Of particular interest was an exhibit of rare medical items from the library of Dr. Edward C. Streeter, of Boston, spread in the exhibition room of the Boston Public Library. The exhibition was specifically epidemiological, the essential literature on fevers from Hippocrates to Lancisi, with a few sections such as Plague, Syphilis, Venesection superadded.

The permanent headquarters of the Medical Library Association is in the Medical and Chirurgical Faculty Building, at 1211 Cathedral Street, Baltimore, Maryland.

The Clarke County Medical Society and the Scientific Society of the University of Georgia had the pleasure of hearing Dr. W. L. Moss, Professor of Tropical Medicine at Harvard Medical School given a description of the work of the Commission to the Dominican Republic for the investigation of Yaws, on Friday, July 1st, 1921, at LeConte Hall, Athens, Ga.

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At a recent meeting of the Emanuel County Medical Society a resolution was passed favoring a new Medical Practice Act in which all those who practice the healing art, by whatever method, should come under the same regulations and requirements.

Settlement of the constant contentions of the various cults springing into existence from time to time posing as the salvation of those suffering from any and all ailments to which fallen humanity may be heir. This Society also announces 100 per cent. membership.

The 100 per cent. membership and the above resolutions are capital examples for other county medical societies to follow.

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The Railway Surgeons Association of Georgia held its regular meeting at Indian Springs, Ga, August 17th, 1921. A complete report of the transactions will be furnished the Journal for an early issue by Dr. J. W. Palmer, the efficient Secretary-Treasurer of the organization.

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#### STANDARD TUBERCULOSIS SANITARIUMS, ETC.

From data collected from every available source the U. S. Public Health Service has prepared and published plans and specifications for a model sanitarium for tuberculosis patients, especially those from the world war. Where possible these plans will be followed in future Service hospital construction; and where conditions will not allow exact adherence they will be used so far as possible.

The plans group the administrative buildings in the center around three sides of an open court. Facing from fourth side, from across a roadway, stands the infirmary, its wards radiating away in wheel-spoke fashion. On the opposite side of the administration buildings, close up, is an auditorium and an open-air theater. A short distance beyond this the wards for semi-ambulant patients are disposed along a concave arc; and a little farther away

are the wards for the ambulant patients. The officers, nurses, and attendants quarters are severally grouped here and there on the right; and the industrial buildings (power house, etc.) are grouped on the left. Provision is made for occupational therapy and for vocational training for selected patients.

### VITAL STATISTICS IN RE CHILD HYGIENE.

#### Death Records 1920 by Ages.

(Including Stillborn.)

Age Period	Number Dead	Per Cent of
		Total
Stillborn .....	2,754	7.8
Under 1 year .....	8,221	23.5
From 1-2 .....	9,603	27.5
From 2-4 .....	10,793	30.9
From 5-9 .....	11,716	33.5
From 10-14 .....	12,413	35.5

#### Child Hygiene Activities Other Than Physical Examination of School Children.

Children's Health Centers (Established):

Aacworth.

Athens.

Atlanta—Grant Park, Anti-T. B. Association, Fulton Bag and Cotton Mill, Colored Sanitarium (Dr. Dwelle).

College Park.

Donaldsonville.

Hogansville.

LaGrange (International Mill).

Marietta.

Winterville.

Children's Clinics (Established):

Alpharetta.

Atlanta—Gray Clinic, Anti-T. B. Association.

Augusta.

Brunswick.

Cartersville.

Madison.

Rome.

Savannah.

Sylvester.

Children's Health Centers (Organizing):

Atlanta—Neighborhood House.

Columbus.

Cuthbert.

Fayetteville.

In Counties:

Brooks County—Quitman.

Cobb County—Roswell.

Dougherty County—Albany.

Floyd County—Rome, Armuchee, Cave Spring.

Hall County—Gainesville.

Laurens County—Dublin.

Lowndes County—Valdosta.

Thomas County—Thomasville.

Worth County—Sylvester.

Children's Clinics (Organizing):

Albany.

Comer.

Dallas.

Dublin.

Gainesville.

Marietta.

Norcross.

Quitman.

Thomasville.

Valdosta.

Washington.

Wrens.

#### Literature of the Division of Child Hygiene.

(For Distribution.)

Prenatal and Neonatal:

Birth Registration.

Birth Registration Postal Cards.

Lessons for Midwives (in preparation).

Infant and Preschool:

Children's Health Centers.

Children's Health Center (Outline).

Children's Health Center Score Card.

Milk Depot (Outline).

Breast Fed Baby.

Bottle Fed Baby.

Diet Slip—12-18 months.

Diet Slip—18-24 months.

#### A SYPHILITIC MANIFESTATION IN THE NOSE.

Harold M. Hays, M. D. American Medical Association *Journal*. Vol. 76,  
No. 23, June 4, 1921.

The engorged mucous membranes, covering the turbinates and the nasal septum, if



such mucous membrane is not distinctly polypoid, will invariably shrink under the application of a 1 per cent cocain solution, to which is added a third part of a 1:1000 solution of epinephrin chlorid. If the mucous membranes do not shrink perceptibly under the application of such a solution there is in all probability a syphilitic infiltration of the mucosa. The nasal mucosa is first sprayed with the solution after which pledgets of cotton immersed in the medicament are removed in from five to ten minutes. If the mucosa still obstructs the nose, it is evident that there is some pathologic condition of this membrane which will not allow it to shrink, probably a syphilitic infiltration.

The author reported two cases. His concluding comments were:

A Wassermann test should be made in all cases of nasal obstruction in which the obstruction is due to a thickened mucous membrane which will not shrink under the application of cocain and epinephrin.

#### **NERVE INJURIES DUE TO ERRORS IN TECHNIC IN MAKING INTRAVENOUS ARSPHENAMIN INJECTIONS.**

Dean Lewis. American Medical Association Journal, Vol. 76, No. 25, June 18, 1921.

Accidents following the intravenous injection of arspenamin, although uncommon, are very serious when they do occur. The author reports two cases in which the solutions of arspenamin were injected into the nerve or the sheath surrounding it, severely damaging the nerve. Such cases emphasize the need to exercise extreme care in making injections. Pain radiating into the fingers when the first few drops of the solution are injected should be a warning that the needle is not in the vein and that the solution is being injected directly into a nerve or into the tissue surrounding it. Arspenamin injected into or about a nerve may have a marked destructive action, causing extensive degeneration of neuraxes and the devel-

opment of large amount of scar tissue. The densely adherent scar which follows sloughing of the skin, if such occurs, may seriously interfere with or render unsatisfactory a nerve suture.

#### **ROENTGEN-RAY THERAPY OF DISEASED TONSILS.**

Forty-six individuals with tonsils both hypertrophied and otherwise pathologically altered and some of whom had in addition adenoid masses and lymphoid deposits posterior to the pillars of the fauces were given exposure to roentgen rays. In all but four cases the treatment was followed by marked atrophy of the tonsils and the other lymphoid deposits, attended by an opening and drainage of the tonsillar crypts. As this process progressed, the previously enlarged tonsils assumed a smooth and normal appearance, and the hemolytic bacteria—streptococci and staphylococci chiefly—which were often present in the affected tonsil disappeared usually within four weeks of the treatment.

Murphy, Witherbee, Craig, Hussey and Strum, Jr. of Exp. Med., June 1, 1921, 33, No. 6.

#### **PROPAGANDA FOR REFORM.**

Proteogens in Syphilis.—C. F. Engels, Tacoma, Wash., reports that two persons came to him who had been treated with Proteogen No. 10 for almost a year. Both patients were four plus to the Wassermann test. He writes: "The tragedy of the whole thing is that here are two people, at least, who have been deprived of adequate treatment for a year, spending their money for ignorance and fakery, getting worse instead of better, and all because of the cupidity of these people (the promoters of the Pro-

teogens) and their success of putting over on some of the weak sisters of the profession this pseudo-scientific bunk." The Proteogens have been the subject of an extensive report by the Council on Pharmacy and Chemistry, which declared the twelve Proteogens inadmissible to New and Nonofficial Remedies because their composition is secret; because the therapeutic claims made for them are unwarranted, and because the secrecy and complexity of their composition makes their use irrational (*Jour. A. M. A.*, June 4, 1921, p. 1593).

**Disappointments in Endocrinology.**—In the current enthusiasm for so-called endocrinology, medicine may become humiliated by the drift toward a sort of pseudoscience bolstered up with meaningless words and unfounded assumptions. Stewart deserves the thanks of the medical profession for the fearless and critical manner in which he has questioned (*Endocrinology*, vol. 5, p. 283 (May) 1921) much of the verbal rubbish that goes under the designation of the endocrinology of the suprarenals. There is something stinging, yet deserved, in its implied rebukes, in the words of Dr. Stewart: "On the whole," he says "It must be granted that hitherto the attempts made to evoke in animals a well marked syndrome characteristic of adrenal deficiency have been singularly disappointing. The contrast is great when we leave this desert, where the physiologists and experimental pathologists have wandered, striking many rocks but finding few springs, and pass into the exuberant land of clinical endocrinology, flowing with blandest milk and honey, almost suspiciously sweet." How much longer will the medical profession continue to merit such criticism? Just so long as the profession continues to give serious consideration to pseudoscientific rubbish promulgated by the exploiters of organic extracts (*Jour. A. M. A.*, June 11, 1921, p. 1685).

**Mon-Arsone Not Admitted to N. N. R.**—The Council on Pharmacy and Chemistry reports that Mon-Arsone is related to sodium cacodylate, which latter has been proved inefficient in the treatment of syphilis. After examining the available evidence, the Council voted not to admit Mon-Arsone to New and Nonofficial Remedies and held that the claim that Mon-Arsone has a therapeutic value equal to that of arsphenamine was unwarranted; that Mon-Arsone was put out by the Harmer Laboratories Co., as "A new and non-toxic arsenical for the treatment of syphilis" and that it was claimed that the drug had a therapeutic value equal to arsphenamine but was devoid of toxic action. Chemically, Mon-Arsone should not be used except under conditions that justify the experimental trial of an unproved drug, and that the advertising propaganda for the drug by the Harmer Laboratories Co. was to be depreciated. When the Council sent its report to the Harmer Laboratories Co., prior to publication, the firm announced that the claim that Mon-Arsone is therapeutically equal to arsphenamine had been abandoned. In publishing its report, the Council en-

dorsed the recent warning against the use of untried medicaments issued by the U. S. Public Health Service. It also calls attention to a report on the effect of Mon-Arsone on experimental syphilis recently published by H. J. Nichols, which showed that the drug, when tested on rabbits infected with experimental syphilis, showed no spirocheticidal power (*Jour. A. M. A.*, June 18, 1921, p. 1781).

#### SPECIAL TRAIN ANNOUNCED ACCOUNT MEETING SOUTHERN MEDICAL ASSOCIATION.

Arrangements have been made by the Medical Association of Georgia to conduct a Special Train to the 15th Annual Meeting of the Southern Medical Association, which will be held in Hot Springs, Ark., Nov. 14-17, 1921. This train, which will consist of All Steel Drawing room Sleeping cars, Compartment Cars and Dining Cars, will leave Atlanta, Ga., via the SEABOARD AIR LINE RAILWAY, at 5:30 P. M., Saturday, Nov. 12th, arrive Birmingham at 10:40 P. M., leave Birmingham via FRISCO R. R. at 11:00 P. M., arrive Memphis early morning of the 13th, using the Rock Island R. R. from Memphis to Hot Springs, arriving there about 1:00 P. M. of the 13th. This route has been selected as it is the shortest and best route from this territory to Hot Springs, and will afford our members the best possible service. Our SPECIAL will be personally conducted by Mr. Pat Hampton, District Passenger Agent of the Seaboard, who served overseas with the Army Unit (Base Hospital No. 43), and who has had extensive experience in conducting parties of this character. Mr. Hampton will remain with the party at Hot Springs to take care of the arrangements for the return trip. Application has been made for special reduced rates for the meeting, and we expect to have advice on this feature at an early date.

All physicians of the Southeastern States, who anticipate attending this meeting, are cordially invited by the Medical Association of Georgia to join them on this trip. Those from Virginia, North and South Carolina and Florida, should join the party at Atlanta, at which point the Georgia delegation will concentrate, those from Alabama joining the train at Birmingham.

It is anticipated that this will be one of the largest and best meetings ever held by the Southern Medical Association, a very large attendance being expected from over the entire Southern States.

The officers of the Association cordially invite the physicians to take their wives on this trip, and it is principally to accommodate them that we have arranged for Compartment Cars to be attached to our Special Train. All those expecting to make this trip should send their applications for space right away.

For further information, including all details write Mr. Pat B. Hampton, District Passenger Agent, Seaboard Air Line, Atlanta, Ga. or Dr. Allen H. Bunce, Secretary, Medical Association of Georgia, Healey Bldg., Atlanta, Ga.



The members of the Alumnae of St. Joseph's Infirmary, Atlanta, are raising a fund of Five Thousand Dollars with which to endow a room as a memorial to Miss Camille O'Brien, the room to be used free of charge by nurses who are sick.

We think the members of the Emory Unit realize the worthiness of Miss O'Brien to the memorial. She spent her life doing kind deeds for others, so we decided on a memorial that will extend her idea of usefulness over an indefinite period.

We feel that her associates in France will want to help with this work, and any donation of any size you can send us will be most gratefully appreciated.

Sincerely,

ST. JOSEPH'S INFIRMARY,  
By Ethel Johns, Vice President.

Dr. Alfred S. Burdick has been elected to fill the vacancy as President of The Abbott Laboratories, caused by the death of Dr. W. C. Abbott.

He is a graduate of the Alfred University, Alfred, N. Y. and Rush Medical College, Chicago. He has been closely associated with The Abbott Laboratories for over seventeen years, and for the past six years has been Vice-President and Assistant General Manager.

We beg to announce that we have formed a group to be known as The Savannah Valley Clinic: Chas. W. Crane, M.D., Hugh N. Page, M.D., W. R. Houston, M. D., V. P. Sydenstricker, M.D., July first, nineteen hundred twenty-one, Lamar Building, Augusta, Ga

Dr. J. Allen Johnston announces the change of his address from LaFayette to Bainbridge, Ga.

We are glad to note that the Medical Association of Georgia received recognition at the meeting of the A. M. A. when Dr. W. A. Mulherin of Augusta was made Vice-Chairman of the Section on Pediatrics.

Among the many floral offerings at the unveiling exercises at the University of Georgia of the monument erected by Dr. Joseph Jacobs to the memory of Crawford W. Long, the discoverer of ether anesthesia, was a wreath from the Medical Association of Georgia. Dr. Long's name stands as one of the famous and honored former presidents of the Association. We honor ourselves in paying homage to such men.

Dr. E. C. Davis of Atlanta delivered the Alumni Oration at the Commencement Exercises of the University of Georgia. He chose for his subject, "The Need of a Physician," particularly as applied to Georgia and her educational institutions. The complete address will appear in an early issue of the Journal.

#### ATHENS GENERAL HOSPITAL.

The completion of the General Hospital at Athens, Georgia, is an accomplishment any city could point to with pride. Located on a beautifully shaded lot at the junction of Prince Ave. and Cobb St., in a quiet residential section of the city, it presents a restful and inviting air. From the architectural standpoint the scheme is simple though very pleasing. The exterior being of light gray brick with limestone trimmings and lofty columns at the main entrance forms a picture well suited to the colonial atmosphere in which it has been placed.

In the planning and execution of the scheme, no pains or expense were spared to make the plant complete and convenient in the minutest detail. The unit just completed is the first of a series to be built, it being the intention of the board to expand the scheme by placing other units parallel to and in the rear of the one just finished.

The completed structure has three stories and a basement, is fireproof throughout with terrazzo floors in all corridors and wards. The approach for the ambulances and supplies is from the rear through the basement where an examination room and detention ward are provided. There is placed in the basement, also, the low pressure steam heating plant, hot water heater, high pressure steam boiler for sterilizing and other purposes, coal bins, laundry, kitchen, nurses' dining room, general diet kitchen, pantries and store room.

The main entrance for visitors is on the central axis of the first floor. Directly opposite the entrance is the elevator and stairway, to the right is the general office and to the left the reception room for visitors. On the first floor is provided four large wards for charity patients and others who cannot afford private wards. The remaining portion of this floor is given over to one and two bed wards with private baths. At each end of the building is placed spacious porches for convalescents. On each floor is provided diet kitchens connected by dumb waiters to the main diet kitchen in the basement. Work rooms containing blanket warmers, medicine cabinets, etc., are installed on each floor.

The entire second floor is utilized for one and two bed wards, a number of which have private



baths. In the north end of the third floor is placed two spacious operating rooms with large plate glass windows set in metal frames and equipped with ventilating sash. The floor and side walls, to the wainscot height, are of white nitrous tile. The remaining wall surfaces and ceilings are hard plaster painted gray. "Noshadow" electric lights are provided for night work. Between the two operating rooms is the sterilizing room fully equipped with sterilizers, water filters and distilling units. Adjacent to the operating rooms is the laboratory and X-ray department. Across the corridor is the surgical dressing room, surgeon's locker and shower and anaesthetizing room. The remaining portion of this floor is to be used as maternity and children's wards. In connection with this section is a specially equipped delivery room and sterilizing outfit.

The annunciator system is of the silent call Holtzer-Cabot patent, the lighting fixtures of opal vitreous ware, the elevator of the latest type of automatic elevator of the Otis make. The special apparatus is of the Scanlan-Morris "White Line."

The normal capacity of the completed building is 72 beds, though under crowded conditions 100 patients may be accommodated.

For permanency, convenience and equipment this hospital has no superior in the South.

#### "DR." GRENOBLE SENT TO GANG.

"Doctor" Arthur G. Grenoble, who operated as a cancer specialist, pleaded guilty to having practiced medicine without a license and was sentenced to serve a year on the chain gang, three months in jail and pay a \$500 fine by Judge John D. Humphries Monday in Superior Court.

Grenoble was surrounded by patients as he faced the court. One of them, a man, kissed him after the sentence had been passed. Many declared their faith in him was undiminished.

Complaints of patients and the Fulton County Medical Society caused Grenoble's indictment in three cases ten days ago. He was said to have employed a serum administered in the arm. Some of his patients asserted their belief it was only water.

Grenoble was declared by the prosecution to be a painter. He told Judge Humphries he was a graduate of a college in Worcester, Mass., where he studied bacteriology and botany, and that he had practiced medicine in France and Cuba.—(Atlanta Georgian, July 26, 1921.)

### BOOK REVIEWS

#### DISEASES OF THE INTESTINES AND LOWER ALIMENTARY TRACT.

By Anthony Bassler, M.D.

Professor of Gastroenterology, Fordham University Medical College and New York Polyclinic

Medical School and Hospital; Visiting Physician, New York Polyclinic Hospital; Visiting Gastro-Enterologist, Peoples Hospital; Consulting Gastro-Enterologist, Stuyvesant Polyclinic, Beth-David and Christ's (N. J.) Hospitals; Fellow of American College of Physicians and New York Academy of Medicine; Member American Medical Association and Medical Societies of the State and County of New York, American Medical Editors' Association, American Roentgen Ray Association, New York Gastro Enterology Club; Honorary Member of the Southern Gastro-Enterological Association; Author of the Text-book "Diseases of the Stomach and Alimentary Tract," etc., etc.

Illustrated with 154 Text Engravings and 62 Full-Page Half-Tone Plates (with over 70 Figures), some in Colors. Philadelphia. F. A. Davis Company, Publishers.

This book is supplementary to the previous work of Dr. Bassler on the Stomach and Upper Alimentary Tract. This volume shows the marks of careful preparation and painstaking research, and is such a production as might be expected from its distinguished author. Though some of the conclusions and consequent procedures may not meet with the entire approval of all its readers, the book as a whole may be considered a comprehensive exposition of the subject, and is worthy of a place in the library of every thoughtful internist or gastroenterologist. —NILES.

Dr. Wallace Calvin Abbott, who died at his home in Chicago, July 4, was born in Bridgewater, Vermont, October 12, 1857. His early education was obtained at the State Normal School, Randolph, Vt., the St. Johnsbury Academy, St. Johnsbury, Vt., and Dartmouth College, Hanover, N. H. Coming west, he worked his way through the University of Michigan, winning his degree as Doctor of Medicine in 1885. The following year he engaged in the practice of medicine in Chicago, building up a large practice on the North Side and winning many friends.

It was during this time that Doctor Abbott established The Abbott Alkaloidal Company, now known as The Abbott Laboratories of which firm he was President continuously from the time of its establishment, more than thirty years ago, until his death.

For several years previous to his decease, Doctor Abbott had been in ill health. Anticipating his active retirement from the large and successful business which he had found, he placed the conduct of The Abbott Laboratories largely in the hands of his older employees, under a generous cooperative reorganization plan on which it has been operating for more than two years.

Doctor Abbott was a man of broad vision and great energy. He was an organizer of rare ability, warm-hearted and beloved by his employees, business

associates and hundreds whom he had befriended.

Doctor Abbott was a pioneer in the field of alkaloidal medication. He labored incessantly through his writings, and personal contact with thousands of physicians, to bring about a more careful study of the patient, and the treatment of separate symptoms as they developed, as contrasted with the older method of treating by disease names only. His influence upon the medical profession in this respect has been profound.

Doctor Abbott was co-author, with Dr. Wm. F. Waugh, of several medical books, including "The Practice of Medicine" and "Positive Therapeutics." He was, also, Editor-in-chief of The American Journal of Clinical Medicine, now in its twenty-eighth year.

For the past five years Doctor Abbott has encouraged extensive research work along the line of new medicinal chemicals. As a result, a number of the remedies, formerly made only in Europe, are now manufactured by The Abbott Laboratories.

Doctor Abbott was a member of the Ravenswood Methodist Church, the American Medical Association, the Illinois Medical Society, the Chicago Medical Association, the Medical Editors' Association, American Drug Manufacturers' Association, American Pharmaceutical Manufacturers' Association, Ravenswood Lodge 777 A. F. & A. M., the Oriental Consistory and the Shrine.

He leaves a widow Clara A. Abbott and a daughter Eleanor Abbott.

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Volume X

ATLANTA, GA., SEPTEMBER, 1921

No. 16

### ORIGINAL ARTICLES

#### A PLEA FOR MORE THOROUGH EXAMINATIONS BEFORE OPERATIONS ARE PERFORMED.\*

E. C. Davis, A.B., M.D., F. A. C. S., Atlanta

So frequently has my attention been directed to cases in which an operation has been ordered or performed before the patient has had time to be subjected to a careful and complete examination, that I have felt the attention of the profession should again be directed to the dangers and possible errors that may result from too much haste in these cases. The time has long since passed that the physician can simply lay his hands on a patient, auscult and percuss for a short period and then make anything like an accurate diagnosis. It is not necessary for me to direct attention to the fact that our most modern hospitals, with all the refinements for diagnosis, results have shown not more than two-thirds are accurately made. If we are going to be contented with our own expressed opinions and not have tissues examined after removal and autopsies made after a mortality, then we may pass through life partially narcotized by our own ignorance and self-contentment. But if the scrutinizing investigations of accurate scientific analytic methods are adopted and each case gone over from the truly scientific standpoint, we would not feel comfortable in many cases. There are many cases that would never be brought to the operating table if examined properly beforehand. These are the cases that come back after being operat-

ed upon with the symptoms unrelieved or aggravated. There are several reasons for these possible errors, chief among them may be mentioned (1) hasty or careless examinations, (2) incomplete examinations, (3) imperfect examinations, (4) failure to utilize the so-called instruments or methods of precision (5) mercenary considerations.

In regard to the first class, would say that sufficient time should be given the study of the case to reduce the possibilities of error. The plan of rushing a patient into the operating room, unless it be a distinctive emergency is decidedly reprehensible. A patient should, if possible, be within the hospital and under observation for from twenty-four hours to several days. Many a patient has been subjected to operative measures purely upon the symptoms which he or she gave, and the diagnosis made largely from what was told and not accurately checked by a thorough examination.

(2) Incomplete examinations. This is one of the serious faults that many are prone to, and leads to many very grave errors. Who has not seen the child operated on for appendicitis who had pneumonia, the adult with gall bladder operation when there existed a diaphragmatic pleurisy or pneumonia or hemorrhoids removed when there existed a malignant stricture of the rectum, or cirrhosis of the liver? It is needless to enlarge upon this phase of our subject, as we have all experienced its disastrous results.

(3). Imperfect examinations. The question of diagnosis has become so extensive that it is no longer possible for one man to master all the intricacies of accurate examinations. We are now obliged to utilize experts, men of wide experience and careful training in their respective branches to arrive

\*Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.

at the best results. This has been called group method or faculty association. In making up this group or faculty, extreme care must be exercised in the selection of the respective numbers, and only those of known skill should be considered competent to make such examinations. These men may not be connected by any business association, but should be available to thoroughly examine the patient under the most favorable surroundings. Personally, I believe each patient should be regarded as a medical case until passed on by a skilled physician and referred to the surgeon. The surgeon of today cannot hope to be competent to make eye, ear and throat examinations; to pass upon chests and hearts; to interpret x-ray plates; make cystoscopic examinations; to make laboratory examinations or use the more delicate instruments that require special skill, as well as men who are doing these things every day. I've known of patients going to the operating table without a urinalysis or blood examination, without even when indicated a Wassermann, and have known these latter to have an abdomen open and the intestines protrude from a failure of union. Who has not seen case after case, where what appeared to be a benign growth removed, and the family assured that complete recovery would result, later to find a marked malignancy had been imperfectly attacked, purely because no pathologist was present to check up and advise? Again how many of us know how to interpret x-ray plates intelligently? I am free to state that my knowledge of this is very imperfect.

(4). Failure to utilize the so-called instruments or methods of precision. I would in no sense place any disparagement upon the clinician in his place, but the careful clinician now brings to his assistance all the so-called instruments of precision available in obscure cases. Who would undertake to practice surgery now without the x-ray expert, the laboratory expert and the various others who are daily laboring in their respective fields of special medicine. Latent nephritis may be overlooked without a care-

ful examination or perhaps several examinations, both of patient and kidney function. These cases often only need an anaesthetic to arouse a slumbering condition and make it both active and dangerous. Failure of metabolism undetermined may lead to a fatality, after injudicious use of improper anaesthetic. That obscure condition is certainly not benefitted by an anaesthetic and if properly prepared may pass safely through a surgical ordeal. These errors could be elaborated to an almost unlimited degree, but they only go to illustrate the fact that thoroughness, and if necessary, time must be allowed before rushing into surgical fields of work. Again, this must, as a rule, be accomplished by several workers, if well or wisely selected, they would be but closely associated, but skill is the essential for thoroughness and whether they are grouped or not is but a matter of convenience.

I have not as yet alluded to one actuating course that no real surgeon could be accused of being influenced by, namely: A Mercenary Motive. Our profession should not permit any member to practice this, who could in any way be influenced by such motives, and his right to call himself a surgeon should be taken away, if it is proven that any such debasing motive influenced him in his course.

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#### Discussion on the Paper of Dr. E. C. Davis.

DR. R. C. WOODARD, Adel: I arise to endorse Dr. Davis' paper. Many of us so far removed from the medical centers of the state, and many of us country gentlemen may say the good work as outlined by Dr. Davis is impracticable to the average man in the country districts. I want to defend it and claim that it is not impossible; that it is absolutely necessary to get the results that should be demanded of us as medical men.

In our county we have worked out in a measure the plan outlined by Dr. Davis by beginning with a little hospital, getting an x-ray machine, having a lady trained in x-ray technic, sending a lady trained nurse to Dr. Bunce and getting her laboratory



ability to do our work, and in this way we are trying to give our people what we think they are paying for. This is not impossible, and as Dr. Davis very aptly stated, the day has passed when you can put your hand on the abdomen or finger on the pulse, and look at the tongue, and tell what is the matter with the patient. This should require a very thorough, thoughtful medical man in the country districts. We are not obliged to send all patients to Atlanta or to Augusta to have a diagnosis made. We can make it at home if we equip ourselves and train ourselves to do efficient work.

DR. GEORGE M. NILES, Atlanta: It is unnecessary to endorse Dr. Davis' well considered words. The points he has made are realized by us all. I have seen concrete instances of patients being put to unnecessary trouble and saved from disaster which would have occurred later on.

I have had five cases of appendicitis in which the appendix was taken out without relief, and a stone was found in the right kidney or right ureter. The appendix was taken out by careful men. I have two instances in mind where married women were referred to the city for the removal of an abdominal growth, and it was demonstrated they were pregnant. But they were referred to a gynecologist for the purpose of having an abdominal growth removed.

I have had two cases within the last two months come under my observation for supposed vomiting. In each instance the stomach was treated. In each instance there was a malignant growth found at the cardiac opening of the stomach. There was an increase in dilatation of the esophagus, and it was not vomiting at all but a regurgitation of food that had never gotten into the stomach. These are concrete instances, and this paper furnishes food for thought and should encourage reflection along these lines.

DR. L. C. ALLEN, Houston: We all make honest mistakes. Our endeavor should be to reduce these mistakes to a minimum. We are all agreed as to what Dr. Davis has said.

Surgeons are partly to blame and the general practitioner is partly to blame. The general practitioner is too ready when he comes across a case he cannot at once understand to send that case to a surgeon. I used to do that myself. You come across a case that you suspect may need surgery, you send him to a surgeon, and the surgeon thinks you sent him there for an operation, and he is too much inclined sometimes to operate without making a thorough study of the case to determine whether an operation is really needed, or whether an operation would cure or benefit the patient. Before you send a patient to a surgeon you ought to decide yourself whether or not that patient needs surgery.

DR. COOPER HOLTZCLAW, Chattanooga, Tennessee (by invitation): I did not hear Dr. Davis' paper, and it does not make any difference so far as that is concerned. However, I caught the drift of the discussion and was interested in it.

I had a patient come to my office not long ago who said he had just returned from Baltimore. He said he went to a man there who examined him and charged him \$25.00. He did not tell him what to do. He told him to go to the eye, ear, nose and throat men. He did so and was charged another \$25 and they did not tell him what was the matter with him. He was then told to go over to an x-ray man for examination, which he did, and the x-ray man charged him \$50.00 and did not tell him what was the matter with him, nor did he tell him what to do. He then went to another specialist who examined his rectum and bladder, and charged him \$50.00 and did not tell him what was the matter. In short, he consulted about eight different men without getting any satisfaction, and on returning to Chattanooga, he said to me, "Now, my God, I want a doctor."

It is all right for these specialists to make their examinations. It is all right for a man to be examined by the x-ray to have his blood examined, etc., but at the same time,

we must not neglect the senses that God gave us. I often think of the scriptural quotation "seek and ye shall find; knock and it shall be opened to you." Each one should endeavor to become as much of a specialist as he possibly can be, and there is no reason why if you search deep enough in your cases you should send them to Baltimore or to the Mayos, or anywhere else. Learn to do these things yourself.

DR. J. E. PAULLIN, Atlanta: I rise to say that Dr. Davis has brought to our attention one of the most important papers so far presented to this Association, particularly so far as the welfare of the patients themselves is concerned. I am delighted that such a paper was presented by such a man as Dr. Davis, who is preeminently a surgeon, and who has had years of experience, a wonderful experience in surgical training. As a matter of fact, our education in teaching medical students that the spectacular side of surgery is the thing, is a mistake. Things that are spectacular are the things medical students fall for, and they are inclined and are taught that it is easy to take a knife in hand and open an abdomen and see whether there is anything wrong rather spend two or three or five days in studying the particular case to see if they can make a diagnosis of the pathological conditions within the abdomen without opening it up and seeing what there is wrong. As a matter of fact, I think surgery in the last analysis, if I may be pardoned for speaking of surgeons, is really a branch of internal medicine, and that surgery itself is a therapeutic measure just as we have certain other therapeutic agents, and when used for that particular purpose it serves its purpose. It accomplishes its purposes, and by no means does a surgical operation always cure a patient of the particular ailment for which he was operated. You have simply applied a surgical remedy where it was needed in order to cure the patient of that particular ailment, so that after all, in the broadest and true surgical sense, I feel, as I think the majority of big surgeons feel, that surgery is simply

an adjunct to the internal medicine man in following a definite and distinct line of therapeutics in curing a patient of his particular ailment.

DR. E. C. DAVIS, Atlanta (closing): I wish to express my gratitude and appreciation for the discussion that my paper has elicited. I particularly wish to thank Dr. Paullin for the words of encouragement he has offered. I have felt that there was a distinct need for a paper of this kind, and after listening to the discussion I am more than ever convinced that there was a need for its presentation.

The time has long passed when any of us can be qualified in all departments of such an extensive field, and that is a point I wanted to impress. Common sense is the guiding feature of our own lives. Acute diagnostic acumen only comes from frequent practice, and it cannot be acquired except by daily experience. I want to repeat, there are many of these conditions in which I personally feel I am unqualified to practice in.

In regard to surgery, I feel that surgery is but an evidence of an error made somewhere. It is a mistake either on the part of nature necessitating an operation, or some mistake that has been made either in some part of nature or infection has resulted. At any rate, something has gone wrong, and the internist along with the surgeon tries to work out these things accurately so as to lay his hands upon the particular pathological condition, and in order to do this he resorts to all means oftentimes to arrive at a definite and accurate conclusion. We all make mistakes.

I remember seeing a case that was subjected to the most precise instruments of investigation, and finally the patient was referred to a dentist to have a tooth removed on account of a focal abscess. Within two or three weeks from that time this patient came under my observation and I found inoperable malignancy of the liver, with complete obstruction of the pylorus, the case being hopeless. I mention this one case to show that we are all liable to make mistakes. Those who do not make mistakes are



the men who really do not do anything, or those who do not find out their mistakes or who fail to recognize them. I am ashamed of my mistakes. I make them every day, and sometimes after the most careful examination I make, when I open the abdomen and look into it I find a condition that was absolutely unexpected or contrary to my previously existing opinion.

### REVIEW OF 1000 CASES FROM THE DEPARTMENT OF DIAGNOSIS OF HARBIN HOSPITAL.\*

Wm. Howard Lewis, B.A.—M.D., Rome, Ga.

The following review of a thousand cases from the diagnosis department of the Harbin Hospital is presented rather for general evidence than in the expectation of any discovery of special or new facts. This department has at its disposition quite complete laboratories and technicians for all routine laboratory and roentgenological work, all under the same roof with the offices so that there was no hesitation nor delay in obtaining such examinations as were desired. The patients come from a radius of fifty miles which constitutes a territory of small towns and farming communities with a very small industrial element. They usually arrived in the morning with the expectation of leaving the same day so that at times the necessary work was secured under difficulties or completed at a subsequent visit.

Our patients are drawn from a peculiarly American population, and from a people of limited contact with the outside world. They are of a sturdy and phlegmatic type who are not prone to consult a physician except under really pressing circumstances. As a result we usually had to deal with real pathology, with little of the artificial distress—the result of affluence, luxury, and com-

petitive strain—factors so potent in other centers of our country.

It might be observed in passing that this diagnosis service was an innovation but in the year in which it has been operating it has been accepted with eagerness by the very population who have previously had little opportunity by their very geographical location, to understand or observe its merits. They do appreciate the fact that previous medical service has been deficient in something and feel that a careful investigation of their individual cases will be amply justified.

It was not considered essential nor feasible to put every patient through what might be termed a one hundred per cent routine examination as time and expense are very important factors with our clientele. All examinations were made, however, which were in any way suggested by any subjective or objective feature of the case. The history and routine physical examination were made personally by the physician and after all special reports were complete the entire case was reviewed by at least two physicians. By this system, we feel that the major portion of the ground has been covered, although a certain amount of error was recognized to be present. Historical and clinical evidence of definite significance was alone accepted, and what may be termed as "hearsay" evidence in a court of law, was eliminated as far as possible. Hypothetical evidence and hypothetical conclusions were avoided as much as possible—in other words the evidence must be sufficient to "convict." Added caution in this regard was furnished by the fact that a large proportion of our cases are surgical and indiscrete or theoretical diagnosis is too liable to be revealed at the operating table.

The general nature of the clientele may be noted roughly as follows:

Rome, 223; adjacent territory, 777.

Native-born, 998; Foreign born, 2.

White, 962; Negro 38.

The most striking proportions are be-

\* Read before the Medical Association of Georgia, Rome, Ga., May 4—6, 1921.



tween the native and foreign born, and probably in no other section of the country could such a uniformity of racial stock be discovered. It is this very uniformity which contributes definitely to the values of the following data, there being no modifying factors of race, changing environment and habits, etc., which are active in a mixed population. It really furnishes a morbidity record of what may for the United States at least be termed a native people, at least a strictly unadulterated American strain.

**SOCIAL STATUS.**

Male, 492; Female, 508

Single, 344; Married, 656.

This is probably a more nearly equal relation of the sexes than is usual. As the men in this territory are an unusually sturdy class, this proportion may and probably does indicate that the women are either more sturdy than the members of their sex in other communities or else bear their ailments with less complaint. It is my personal observation that the latter factor is the dominant one as the social and economic conditions which surround them are in many ways more unfavorable than those in which their more advanced sisters live. They largely do not take so many minor and nervous complaints to their medical advisor but rather allow some fundamental trouble to compel attention.

**Ages By Decades.**

0-10	-----	38
10-20	-----	166
20-30	-----	250
30-40	-----	196
40-50	-----	172
50-60	-----	102
60-70	-----	52
70-	-----	24

**Family Data.**

Mother Dead, 291; Father Dead, 397.

First Generation:

B. & S. living average no. 4.45.

B. & S. dead average no. 2.4

Per family 6.85.

Second generation:

Children living average no 3.54.

Children dead average no. 1.6.

Per family 5.14.

The relation between the sexes of parents surviving seems rather unexpected as the general opinion would lead one to expect that the male parent would be the survivor. The writer has no suggestion to offer in regard to this feature.

Large families are the rule, meaning by large, some number more than a few. It was not unusual to find families of ten or over, in fact, there were thirty-one of considerably over that number, one consisting of eighteen members. As will be noted, the average number—not including parents—in the families of the first generation was 6.85 and in the present or rising second generation it is 5.14. However, if one remember that this rising generation has probably not yet received its full increment and that of the one thousand patients three hundred and forty-four were single, which moves up the proportion of children to the family to practically seven, we cannot feel that there is any race suicide in this territory but on the contrary that there is an increase.

This group gives us another interesting observation—namely, that the proportions of dead to living is higher in the first than in the second generation. This may mean that there is an advance in hygiene and health or it may mean that the older generation have merely had a longer period of time to their credit which would necessarily mean a higher mortality rate. The probability is that the size of families and mortality rate of the two generations is about equal.

**All Causes of Death in Families.**

Renal	-----	29
Heart	-----	36
Apoplexy	-----	27

-----  
96

T. B. -----127

Lung ----- 79

-----  
206

Carcinoma .....	34
Typhoid .....	66
Labor .....	33
Childhood .....	240
Various .....	365

Here stand out, as in every region where the laws of health are not appreciated, the three destroyers—diseases of childhood with 24% to their credit, lungs 20% with tuberculosis almost 13% and typhoid a distant but expressive third at 6.6%. The cardio-renal group are true to type with 9.7% while the malignancy group appears quite low 3.4—a figure which is corroborated by the number of malignancies coming under actual observation.

#### Previous Illnesses of the Patients.

Influenza .....	265
Tonsillitis .....	226
Typhoid .....	184
Pneumonia .....	150
Malaria .....	61
Scarlet fever .....	47
Diphtheria .....	35
Sepsis .....	2
Miscarriages .....	76
Miscellaneous .....	131

The data on influenza are subject to modification as such diagnoses are too frequently insufficiently established but caution was always used before recording them as such and the actual figures are quite low. There is relatively little bona fide malaria in this section in proportion to the reputed amount. One hundred and eighty four cases of presumable typhoid indicates the great need of sanitation and education. The figure on miscarriages, if even reasonably accurate, speaks well for the efficiency of the female procreative mechanism in a really prolific people. I doubt if a similar low record—in proportion to births (practically 1200) can be generally expected. The proportion of women who did miscarry, however, was 32%. The proportion of acknowledged puerperal sepsis is startlingly low and again speaks for maternal hardihood.

#### Previous Operations.

Two hundred and thirty-seven individuals have had operations (331) as follows: One 171; Two 48; Three 12; Four 4; One 5; One 7;—

The surgery was divided as follows:

Head .....	40
Tonsils .....	69
Extremities .....	9
Chest .....	9
Abdomen .....	102
Pelvis .....	79
Miscellaneous .....	29

#### Complaints Presented.

Head .....	33
Chest .....	128
Abdomen .....	226
Pelvis .....	67
Urinary .....	79
Nervous .....	58
General .....	91
Miscellaneous .....	318

#### Length of Illness Preceding Examination.

Acute 107; Chronic 893.

Recent .....	158
3 mos. ....	101
6 mos. ....	85
	344
1-5 years .....	268
5-10 years .....	305
10 years .....	83

It appears that the significance of these figures is that half of the individuals endured their difficulties for from one to ten years before consulting a physician or that for that same period of time had been in search of relief without obtaining it. This latter premise is correct in the majority of instances. While a certain number had illnesses which are not today amenable to relief, a great proportion could have and should have obtained help had they been in a position to secure complete and careful examination and diagnosis. In this class come gall bladder, stomach, chronic appendicitis, renal, localized and chronic infections elsewhere, pelvic tumors, and pelvic trauma, etc. This is no reflection upon their

immediate medical attendants but rather that they stood in need of the service which can only be rendered by a laboratory and diagnostic plant which is not generally available. It is also a call that patients be given this opportunity early in their trouble when relief can be given and not wait until gross pathology may have become established beyond the reach of remedy.

#### Evidence of Pathology as Revealed at Examination:

Head .....	
Sinus and Mastoid .....	7
Tonsils .....	212
Teeth .....	272
Glands .....	116
Miscellaneous .....	23
Neck .....	23
Skeleton—bone .....	29
Joints .....	25
Orthopedic .....	14
Respiratory .....	90
Cardiac .....	88
Stomach .....	20
Intestinal .....	47
Gall Bladder .....	53
Appendix .....	82
Pelvic .....	130
Kidney .....	92
Fibroid .....	14
Laceration .....	101
Prostate .....	51
Hemorrhoids .....	42
Soft Tissue .....	31
Nervous .....	59
Tumors-malignant .....	20
Hypertension .....	130

These conditions are only chronicled as those of definite importance and which in each case demanded positive attention. Minor disturbances are not recorded. From this it is seen that there was an average of practically 1.8% fundamental pathology in each case.

The tonsils and teeth lead as a group in gross infections with a total of four hundred and eighty-four instances followed by the gastro-intestinal group of two hundred and two again suggesting the relation of the

former to the latter as aetiological factors. Next comes hypertension in 13% of the cases with a similar proportion of pelvic trouble. There appears to be a rather low ratio of fibroid and malignancy.

In arriving at these findings about four thousand laboratory procedures were performed including in that sixty-two cystoscopies, nine proctoscopies, and twenty-two lumbar punctures. Out of the two hundred and fifty-six Wassermanns, twenty-two were positive and out of nine tests for the plasmodium in only two was it demonstrated. In ninety-one cases albumin was present, sugar in four, and casts in seventy-three.

There were 384 cases advised to have surgical treatment and 346 who accepted.

#### Discussion on the Paper of Dr. W. H. Lewis.

DR. STEWART R. ROBERTS, Atlanta: This is such a real paper that I rise to congratulate the author and our state association on having such an excellent piece of medical work done. I believe this paper will be quoted in the medical journals of this country, because it is the first paper I know of that deals with the diagnostic and with the social relations of a group of absolutely pure born Americans. Here are 998 native born Americans, and in this list there are only two foreign born. There has been no such opportunity for medical statistics of native born Americans to my knowledge. Here is an interesting fact, and the longer one studies statistics, the more interesting these facts become. About 10 per cent. on whom he had Wassermanns made showed positive Wassermanns. Out of 500 Wassermanns made there was an average of two and a half per cent. positive. In a series of our own statistics our positive Wassermanns averaged about 4.3 per cent., so you see he is running even lower than we did by 2 per cent.

It has become the custom to teach in medical schools that typhoid is an ancient disease and out of date. You will notice in these statistics here that the deaths in families of patients who had typhoid was 66. Out of 1000 patients that came to the Harbin Clinic, 184 of them had typhoid fever or 18.4 per cent. The number of patients in this series that had typhoid fever is an alarming comment on the sanitation of this area. Osler says that a case of typhoid is a sad comment on the sanitation of the community in which the case originated. Here is 18.4 per cent. of the cases in this section of the state that had an unnecessary disease. Let us follow the typhoid bacillus in his flagellation upon these statistics.



There were 53 of these thousand cases that had gall-bladder pathology or 5.3 per cent. I feel sure Dr. Lewis probably thinks that is rather high for the gall-bladder pathology. May not some of that gall-bladder pathology have been due to the previous typhoid fever?

His statistics of focal infections are interesting. He says that out of 1000 cases, 212 had chronic tonsillitis, and 272 had either pyorrhea or carious teeth, which makes 484 or nearly 50 per cent. of these 1000 patients who had focal infections, which is a very thoughtful series of statistics. Furthermore, it is said the Mayo Clinic was founded really and developed upon the discovery of the abdomen and its pathology. In this series of gall-bladder trouble, which showed 53 out of 1000 cases, 82 of them had a chronic appendix. Surgeons have directed our attention constantly to the acute appendix trouble, and we internists are beginning to call the attention of the profession to the rampages of the chronic appendix. At least, 82 of these 1000 patients had appendicitis, acute or chronic.

Dr. Lewis' statistics show about 10 per cent. due to cardiac disease. The Prudential and Metropolitan Insurance Companies show 12 per cent. or all deaths are due to heart disease. We would expect the syphilitic average to be lower in this community. Dr. Lewis' figures run about 10 per cent., but on the contrary, hypertension is moderate. There are 120 or 13 per cent. of these patients who had hypertension. I would be interested to know how many in the few cases had hypotension. Dr. Lattimore sees more cases of hypotension in his private cases than of hypertension, but Savannah is on the coast level, and hypotension is more common in a lower altitude, and hypertension more common in a higher altitude.

With regard to malignant tumors in the south, the percentage is low. He has only 2 per cent, or 20 out of 1000.

In the next series of cases that Dr. Lewis develops at the Harbin Hospital, it will be interesting to know how they follow his first thousand cases or how they vary.

Dr. Dorothy Bocker, Atlanta:

The statistics that have just been given show the incidence of the various conditions treated at Harbin Hospital. Your attention has been called especially to the high incidence of tuberculosis and typhoid fever. May I ask you to consider the figure covering infant and child morbidity and mortality, remembering in addition that some percentage of the tuberculosis and typhoid rates represents the occurrence of these diseases in children. These figures place child mortality well in the lead and bear out our own findings with respect to the appalling child mortality in Georgia. 12,413 children under fourteen years old died in Georgia last year, six sevenths of the number being children under five years old; over 59 per cent. of all deaths last August were of children under 10 years of age. This shows the problem of child health one that is larger numerically, than

the specialists can handle; it points to the necessity for serious consideration by the general practitioner, a large number of whose patients are, or should be, children.

DR. W. H. LEWIS, Rome (closing): I would like to say that in making Wassermann tests in the last year as a routine, we find that they are still running 2 per cent., a rather low figure. These figures, (in entire paper,) mean just one thing, and that is; there is no use in calling out the fire department when the roof is burnt off of the house. You should get to the fire early. All these statistics of bad mouths, bad teeth, typhoid, etc., are matters of preventive medicine, and we have got to get to the foundation of them. There is little use in trying to save a man when his kidneys or heart are badly damaged, or when his stomach is all shot to pieces. If you try to do so, you may be saving a derelict who will be a burden to society and his family. It is for the medical profession to see that the early beginnings of disease are taken hold of. That is the thing which a routine, careful, fundamental examination is going to do toward preventive medicine.

These figures in regard to the diseases of childhood are absolutely appalling. In France, during the war in many of the children's hospitals in large cities, 95 per cent. of the infants that were admitted under one year of age died. In the two years that I was in France among the French population, we talked about the terrible loss in that war, and of how many men were being killed, figures which would take a hundred years to restore.

There were babies by the hundreds and thousands to look after, as well as children, simply because they did not know how to take care of them. We all talk about rehabilitating the French nation again, but let us use a little head work and save our own population at home.

**PHYSICIANS OF GEORGIA.\***

W. A. Davis, M.D.,  
 Director, Bureau of Vital Statistics,  
 Atlanta, Ga.

The family physician is a relic of the past. With his going came the trained nurse, the specialist and a number of conditions which tend to place the profession on a monetary basis and destroy the close relation which had formerly existed between doctor and patient. One who fears to sign his name has described this condition in the following:

**WHO'S YOUR DOCTOR?**

I just can't say.

I try a new one every day.

When I felt bad Jones sprayed my nose  
 And Doctor Smith worked on my toes  
 While Doctor Brown thumped on my chest,  
 And on my eyes James tried the test.

About my kidneys Keene I saw,  
 'Who said it was my crowded crew  
 To go right now and Johnson see  
 If from my troubles I'd be free'.

I did not go  
 The other five had all my dough.

**HAVE YOU FORGOT?**

In times of use-to-be

How much one doctor did for me.

And did it with so little dope  
 That in him I had faith and hope.  
 For then as now, I was most dead,  
 With something awful in my head.

He felt my pulse, looked at my tongue  
 Examined kidney, heart and lung,  
 And then he said—'You'll be all right  
 Just take a dose of oil tonight'.

And as he said  
 That awful pain sure left my head.

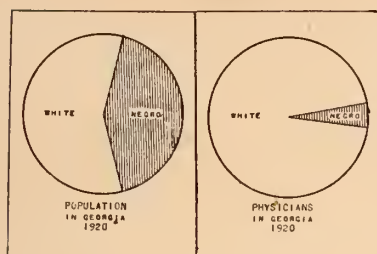
And when that pain was gone  
 He was my friend from that time on.  
 But now the doctors seem to think  
 Not much of me but of my chink.

The necessary expense in practicing medicine, the increase cost of medical education, the demands thrown upon the physician by the position which he holds in the community, all these have forced him to demand the fee before the visit so that he may meet his own obligations. And the poor in many cases have been the sufferers.

They who handle the death records of Georgia are confronted many times with the statement that no physician was in attendance during the last illness of the deceased or that the person died without medical care. This alarming condition is not confined to the negro population but is found to exist among the whites. Poverty alone is not the only cause for there is a decrease in the number of those practicing medicine, or at least the increase in the number of physicians is far short of the increase in the population.

The 1920 Census shows 1,689,114 whites and 1,206,365 negroes. The American Medical Directory for the same year shows 3,406 physicians, 2,208 are white and 182 negroes. There was an average increase in population each year since the previous Census of '28, 671 or a total of 286,711 for the ten years. Figures are not available as to the number of physicians dying during that period of time but there was a decrease of 36 physicians since 1918, as compared with the increase in the population of 57,342. On account of poverty among the negroes and the fact that there is not a sufficient number of their race to care for them, many negroes are not able to secure the services of a physician.

Of the 145,608 physicians in the United States 3,406 were residents of Georgia in 1920. Of the 6,236 hospitals with ten or more beds, 87 were located in Georgia. The 1920 Census shows the population of the United States as 105,708,771 with 2,895,832 in Geor-



gia. In the United States there was one physician for every 725 people and one hospital for every 16,951, while Georgia the same year had one physician for 850 and one hospital for 33,285 persons. This proportion does not represent the exact condition for there were included 102 physicians who had retired or were in the service of the Federal Government or Public Health Work. With this deduction there was only one physician for every 876 people. It should be borne in mind that there are many physicians connected with institutions and private companies so that their services are not available to the general public and far more than 876 people are forced to look to each physician for medical attention. In the cities of 10,000 or over there were 1,238 physicians to serve 522,395 people, that is one physician for each 425 while outside of these cities there were 2,170 physicians to attend to the medical needs of 2,373,437, or one physician for every 1,148 people, and it may be said that the population of the rural districts are now in need of physicians for the above figures indicate that there has been a migration of physicians from the country to the cities until in proportion to the population there are three times as many physicians in the cities as in the rural districts and smaller towns.

It is misleading to compare the number of hospitals for in fact it is the capacity that affords service. In the general hospitals in the United States there is one bed for each 989 people, in Georgia there is one bed for 220 in the larger cities and in the smaller cities and country there is one for 4,573 people and it is very apparent that the rural districts, in order to secure the hospital

service which in many cases is absolutely necessary, must transport the sick some distance and that to the detriment of the one who is to be operated on immediately upon arrival at the hospital.

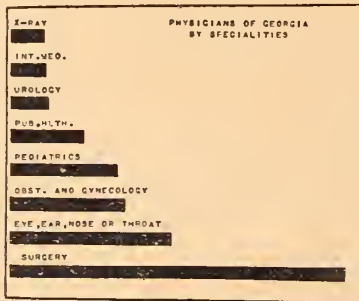
The most serious aspect of the conditions in Georgia is not the lack of hospitals or hospital beds. It is the fact that the number of physicians are far short of former times and the demands of the present. The enactment of the present Medical Practice Act has shown its effect not only in raising the standard of the profession but in a marked decline in the number of those entering the profession and the time is not far distant when the state must offer special inducements to those who desire to study medicine and must assume the responsibility of the care of the poor and middle classes.

Many things are finally finished in a democratic government with a maximum expense and a minimum efficiency. When as an individual proposition the medical profession fails to meet the demands of the people, the state will take control, for the people must be cared for when sick. Unless young men can be induced to enter the profession that time is not far off. According to the medical directory, only 23 new men entered the profession in Georgia in 1920 although 79 in 1918, 116 in 1919 and 104 in 1920 were granted licenses by the State Board of Medical Examiners. During 1919, 40 men began the practice of medicine as compared with 35 in 1918; 61 in 1917; 80 in 1916; 124 in 1915; a total of only 363 physicians who began practicing in the five years while the population was increasing more than 168,000. From 1910 to 1914 inclusive there were 663 who began and were still in the practice in 1920 and during that period the population had increased only 112,000. Not including the loss to the profession due to death and other causes, there were twice as many during the first four years of the last ten years than during the last six years with the medical student headed toward a specialty. With the decline in the total number beginning the practice the end is easily seen.



This condition is not the result of the World War or any of the many reasons given for the unaccountable things which are happening. It is and has been the trend of the profession for many years. Prior to 1895 when the original Medical Practice Act was passed 1,033 entered the profession and were still living in 1920 which is a remarkable showing for any profession. In the seventeen years from 1895 to 1912, when the present Medical Act was passed, there were 1,686 as compared with 686 during the eleven since the passage of that Law.

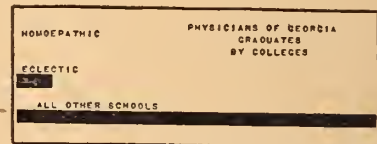
The specialists have educated the public that no matter how simple the work none but an expert should do it and the work of the general practitioner has been reduced to the drudgery of the profession. With six months' training and a few months' experience the specialist can get by with a charge of ten times the bill of the family physician who attended the case for several weeks, then why should the young man waste his time with a general practice, why should our medical schools produce any other than specialists?



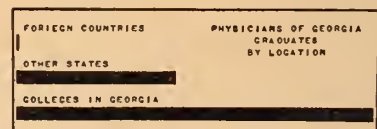
There were 128 physicians in 1920 who were devoting all or most of their time to surgery, 63 to the eye, ear, nose or throat, 45 to obstetrics or gynecology, 42 to pediatrics, 29 to public health, 15 to urology, 14 to internal medicine, 13 to roentgenology, 9 each to pathology and neurology, 7 to dermatology, 3 to orthopedic surgery and 3 to tuberculosis, a total of 386 to 11.5% of the entire profession in Georgia.

The difference existing between the schools of medicine is not now so marked as in former years. As medicine has broadened and

developed this difference has disappeared. To a great extent the general practitioner now uses any remedy whether advocated by his school or not. The profession has been forced to combine its strength regardless of such differences as to the size of a dose or the method of application, in the attack that is being made by the single barrel brigade in an effort to secure legal admission to the practice of medicine on such qualifications as are offered by a six month's correspondence school. The difference was marked in former years, but of the 3,313 practicing medicine in Georgia in 1920, 304 were graduates of Eclectic and 16 of Homeopathic schools, although less than 40 gave their records as Eclectic and less than 10 as Homeopathics.

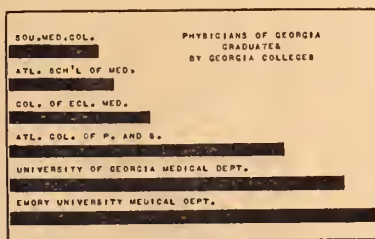


The medical profession of Georgia is cosmopolitan in matters of graduation. Eight physicians were graduates in foreign countries, 4 from Canada, 1 from Russia and 3 from Scotland. There were 1,097 who are graduates from schools outside of the State with 2,208 from Georgia schools. For those desiring a diploma from some state other than Georgia, Tennessee seems to be their Mecca, for there are 318 graduates from the schools of that state while Maryland came next with 190 and Kentucky with an even 100 and New York with 99. Of our neighboring states Alabama furnished 38, Louisiana 49, North Carolina 34, South Carolina 23, while 5 men from far off Iowa came to Georgia to practice. Medical education for the negro race is not so freely offered as for the white. There were 118 graduates of Maharry Medical College of Tennessee which is a negro school, but with this number deducted Tennessee still leads all other states.



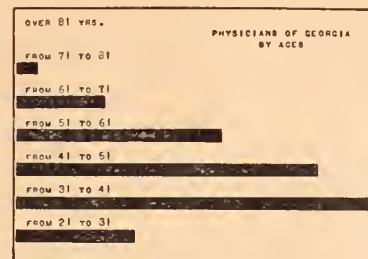
As to the individual medical college Maryland holds the charm for medical students, the University of Maryland furnishing the largest number, 59, the College of Physicians and Surgeons, 45, and Johns Hopkins 42. Tulane University came next with 45, while the University of Louisville, the Louisville Medical College and the Chattanooga Medical College each had 40 graduates practicing in Georgia in 1920. There is an unstated compliment to the Medical Profession of Georgia in the statement of the schools from which they are graduates. Condition of preference and otherwise, lead more than two thirds of those graduating to secure diplomas from schools located within the state.

During the year 1920 only two medical schools were in operation in Georgia, University of Georgia Medical Department and the Emory University Medical Department. In addition to these two there were 17 others represented in the list of graduates. As to number of graduates Emory University led with 607, the University of Georgia followed with 558. From the schools which are extinct or merged with other colleges the Atlanta College of Physicians and Surgeons led with 409 graduates as compared with 238 from the College of Eclectic Medicine, 176 from the Atlanta School of Medicine and 154 from the Southern Medical College. The other 11 schools were represented by 66 graduates running in number from 1 to 33.



Of the 3,406 physicians in Georgia in 1920, 13 were over 81 years of age. There were 50 between 71 and 81; 220 between 61 and 71; a total of 282 who, in the majority of cases, should not attempt to do an active practice. There were 533 between 51 and 61; 746 between 41 and 51; 868 between 31 and 41 and only 320 who were between 21 and 31 years of age. While some men

enter the profession late in life, that fact does not postpone old age and retirement and the people cannot receive his service beyond that limit. The profession must be augmented from the younger men, else it will atrophy. New blood must be injected or decay will take place and this injection must not only be in proportion to the decline but must exceed it if the profession is to go forward and meet the demands of the increased population. Statistics are not available so that a comparison of the number of physicians of years passed may be made, but with the natural death rate taken into consideration, the tabulation by ages can indicate nothing else than that those of the past generation are doing the work that should be done by younger men. The minimum death rate for males in the age periods as tabulated would indicate a death loss of 35 physicians from the 2749 whose ages were stated. This loss was not overcome by the 23 new men coming into the profession.



Roughly speaking, the Medical Profession of Georgia is 123,084 years old. That is the total age of all physicians, indicating an average age of 44.7 years.

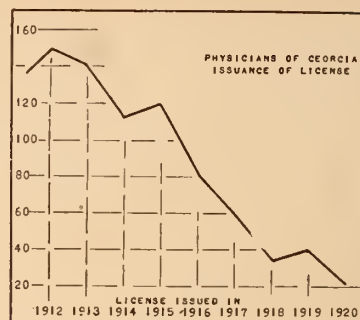
The average age at graduation was 25¼ years. There were some notable extremes, Dr. Taylor, of Luthersville, and Dr. Henry H. McHan, of Fairmont, were 48 and Dr. Wm. F. May, of Savannah, was 47 at graduation, although they had been practicing many years under a legal license. The history of one is in a manner the history of many of that time: "I attended one term at the Reform Medical College, (Macon, Georgia). The Civil War interrupted my study of medicine. After returning from the War in which I lost an arm, I resumed the practice without a license which was

not required in those days. I entered college in the seventies and graduated in 1880." (L. S. Young, Moreland, Georgia.)

It is beyond the ability of common man to pronounce a eulogy befitting such men. Lead not by hope of gain either in money or reputation but in a laudable effort so peculiarly characteristic of great men in all ages they sacrificing all, attempted to perfect themselves in their profession so as to the better serve their fellow man.

Or this: "Graduated at the old Emory College, Oxford, Georgia, class 1860, attended one course of lectures at the old Atlanta Medical College, 1860-61. Enlisted in the Confederate Army, was wounded at Sharpesburg, Malvern Hill and Gettysburg. Returned in July 1865 from Point Lookout Prison" (J. R. Robins, Siloam,) and the Doctor goes further and says "If I am too old and feeble to attain to the heights of Parnassus and drink from that fountain of knowledge that gushes from its summit, I can at least be permitted to linger at its base and imbibe of its pure waters as they gurgle by." It is lamentable indeed that these landmarks of the Medical Profession, on account of old age, cannot keep abreast of the profession, but they are reminded that the progress made in the medical world is in scientific medicine and not in the development of noble characters, for no more noble men will ever grace the pages of medical history than they.

The most valuable asset of a professional man is experience. This is especially true of the practitioner of medicine and so the time has arrived for the election of Dr. James G. Eberhart, of Comer, as Dean of the Medical Profession of Georgia. He graduated in 1854, 67 years ago, at the Philadelphia College of Medicine. For Vice-Deans, Dr. E. L. Connally, of Atlanta, and Dr. Thomas Hartley Hall, of Dublin, are the logical men, since they received their diplomas just five years later from the Atlanta Medical College and the Philadelphia Medical College. As their assistant, Dr. John Thomas Latimer, of Lone Oak, is suggested since he graduated in 1860 from the Atlanta Medical College. If these venerable gentle-



men need any advice, they are referred to any of the eighteen others who, according to the 1921 Medical Directory, have been in the profession for more than fifty years, they are:

James E. H. Ware, Aberdeen, New Orleans School of Medicine, 1861.

J. M. Stalling,\* Grantville, Atlanta Medical College, 1861.

E. L. Bardwell, Talbotton, Medical College of Virginia, 1864.

John A. Hunnicutt, Athens, Atlanta Medical College, 1866.

August A. Brantley, Atlanta, Atlanta Medical College, 1866.

Thomas R. Cook, Atlanta, Atlanta Medical College, 1867.

John Guilford Earnest, Atlanta, Jefferson Medical College, 1867.

Edw. W. Watkins, Ellijay, Eclectic College of Medicine and Surgery, 1867.

Wm. D. Jennings, Augusta, Atlanta Medical College, 1868.

Kingman P. Moore, Macon, Atlanta Medical College, 1868.

Chas. Regulus Mann, Perry, Atlanta Medical College, 1868.

Ebenezer Gilmore, Ivey, Medical College of South Carolina, 1868.

Wm. White Evans, Oxford, Atlanta Medical College, 1869.

James F. Webb, Whigham, Atlanta Medical College, 1869.

Chas. B. Lanneau, Savannah, Medical College of South Carolina, 1869.

John P. Newman, Macon, Medical College of South Carolina, 1869.

Vega Berry, Bainbridge, Kentucky School of Medicine, 1869.

Robert Berrien Ridley, Atlanta, Jefferson Medical College, 1869.



One of the youngest physicians in the state, according to the Directory, was born before the others, with one exception. That record reads, "James W. Taylor, Luthersville, Meriwether County; born 1833; graduate of the Atlanta Medical College, 1871; not in practice". The exception is "James B. Eberhart, Comer, Madison County; born 1833; graduate of the Philadelphia College of Medicine and Surgery, 1854". According to this record, although the same age, Dr. Eberhart began his professional career seventeen years before Dr. Taylor, who secured his license in 1858; the former having retired, the latter still in practice in 1920. Dr. J. M. Stalling, of Grantville, was born in 1835, and Dr. Elijah L. Connally, of Atlanta, and Dr. Thomas Hartley Hall, of Dublin, were 83 years of age. There were six at 82, and two at 81 years of age.

The recitation of this list is intended to bring the landmarks of the Georgia Medical Profession before that Profession so that it may show such respect as is due them. Physicians of twenty years' experience tell of the changes that have occurred during that time. Those of forty years' experience call attention to the progress made in the profession, but too much honor cannot be done those who, fifty or sixty years ago, assumed the responsibility with the meager qualifications given by Medical Colleges of that date, who braved the dangers both personal and professional and who accomplished such wonderful results, handicapped as they were. It is but fitting that the 1921 Medical Profession should revere these venerable gentlemen and each year should show such sentiment by some outward expression.

\*Deceased.

\*The data taken for the basis of this article was obtained from the 1921 A. M. A. Directory. Several errors were found in this Directory. Letters were mailed in an effort to correct such errors but many replies have not been received up to this date.

## A DISCUSSION OF THE RADICAL VERSUS CONSERVATIVE OPERATION UPON THE UTERINE APPENDAGES.\*

Marion T. Benson, M.D.

Gynecologist to Grady Hospital; Consulting Gynecologist to Ga. Baptist Hospital, Atlanta, Ga.

The purpose of this paper is to elicit a discussion as to the best course to pursue after the female abdomen is opened.

Some time ago a well-known neurologist asserted before a local medical society that "every year barrels of ovaries are sacrificed by gynecologists". To this statement I must dissent, for I know no surgeon or gynecologist who would needlessly sacrifice a normal healthy uterus, tube, or ovary. If, however, these organs have undergone definite pathologic changes, which indicate further disease and suffering, why should they remain in the pelvis to continue their evil influence, and perhaps become a source of infection to the whole body?

I admit that it is criminal to remove a sound organ from the body, in the pelvis or elsewhere, but where there is observed a beginning pathologic change in the uterus or appendages, and this change is allowed to progress, thereby necessitating another operation in a year or two, in the writer's opinion it is much better to adopt the radical operative procedure.

How often we open the abdomen, finding a badly diseased ovary on one side, and a beginning pathologic change on the other side. To do conservative surgery here would leave alone these suspicious organs. Perhaps we have found only a slight change, or perhaps both tubes closed and filled with pus, ovaries somewhat cystic, or just a slight inflammatory change, and we remove the tubes, not disturbing the ovaries; or where we find in a multipara a large, soft uterus, a metritis, with one or both lateral sides involved, we do a double or single salpingo-oophorectomy, and leave the uterus, it is probable that in the course of a year or

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.

two, the patient will return with the same old pain, plus new nervous symptoms, or possibly a uterine malignancy. How much more desirable to perform a radical operation, removing all the diseased parts, and have a strong and well patient, rather than to submit her to a second and third operation, even if she does undergo an early menopause and has the nervous symptoms which occur at that period.

The writer was taught conservative surgery in dealing with the female organs, and he still strongly believes that we should conserve all healthy tissue of those reproducing organs, but we should also remember that our patients are seeking **permanent** relief, if possible, so we should be thorough in the first operation, thereby preventing subsequent operations.

Gynecologists and surgeons are often severely criticized by the neurologist for making neurotic women, but if these patients are given the proper care after the operation, which in some instances is not given by some surgeons, who are doing gynecology, most of this criticism would be avoided, and our patients be relieved of much unnecessary suffering.

The secret of good gynecological work is first an intelligent operation, removing all diseased tissue, while, if possible conserving a small amount of ovarian tissue, where a double salpingo-oophorectomy is indicated; second, caring for these cases wisely after the operation, instead of turning them loose without any further treatment.

The writer's method is as follows: first, where the right tube and ovary are diseased, the left ovary undergoing cystic degeneration to do a right salpingo-oophorectomy, attaching the right stump to the right cornu of uterus, covering the stump with sound peritoneum so as to leave no raw surface for adhesions. Carefully resect the left ovary, for if this ovary is left in this condition, it will continue to undergo cystic degeneration, and in a comparatively short time our patient is not any better than before the first operation. Second, where both tubes are closed from pathologic changes, and ovaries show enlargement with

beginning pathologic changes, resect these, taking off from a half to two thirds. The ovary will then gradually atrophy, and not continue in its course of cystic degeneration. If left alone, though, in the course of from twelve to twenty months, we are liable to have to deal with a large cystic ovary, while our patient is still suffering. Third, where the ovaries are involved to a considerable extent and the tube or tubes appear diseased, it is best to save a portion of the ovary, and remove the tube or tubes, thus stopping pathologic changes. Fourth, where we find a large, soft uterus, especially in a multipara, with a history of excessive hemorrhages extending over a definite period of time, a hysterectomy is indicated, for otherwise the great majority of such women show a beginning malignancy, and, if left undisturbed, will soon degenerate into a well developed cancer of the uterus with general infiltration; whereas, had there been an early and complete removal, our patient would have a much better chance to live out her natural life.

In regards to post-operative treatment, which is just as important to the patient as the operation, it is the custom of the writer, as soon as these patients are able to report to his office, (which is usually in four or five weeks), to begin to give them local treatment with glycerine tampons. This treatment is continued for from two to three months, while at the same time tonics and cacodylate of soda is administered, also extract of corpus luteum if a double salpingo-oophorectomy has been performed. If an early menopause occurs, the corpus luteum injections are continued according to the symptoms. If the patient shows a lessening of the nervous changes and hot flushes, we gradually discontinue the corpus luteum; or if the symptoms return, we renew the corpus luteum, injecting an ampule about every alternate day. However, we keep these patients under constant observation from one to two years, until all troublesome nervous manifestations have cleared up. The local treatment is continued until there is no pain upon vaginal examination or in moving the uterus from side to side.



The glycerine tampons afford great relief in these cases, and help to allay much of the pain and nervousness and soreness which follow any gynecological operation. These cases should never be dismissed until they have entirely cleared up—meaning by this that their nerves are quiet, their soreness has departed, and they feel and appear like normal women.

Should this class of patients receive post-operative care, much of the ammunition of complaint would be taken from those who criticize us. In addition, permit the writer to remind them of Deaver's famous epigram—"An empty house is better than a bad tenant".

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#### Discussion on the Paper of Dr. Marion T. Benson.

DR. BERTRAM H. WAGNON, Atlanta: This paper is of no little interest both to the gynecologist and general surgeon. We have very few gynecologists, and we have very few general surgeons, and the consequence is that when a patient comes in who is suffering it is thought she may need an abdominal operation. If she has inflammatory disease in the pelvis she is taken care of by the practitioner as though he were a gynecologist. There is no distinction to be made, so far as I know, between the gynecologist and the general surgeon because they all do it. However, I do not believe any of them would ruthlessly sacrifice any of the female generative organs if they could be left. I grant you, there are mistakes made in diagnosis, and when the abdomen is opened the practitioner feels that he has got to remove something, and often-times ovaries which show Graafian follicle cysts and the practitioner will say, "This is a cystic ovary," and the ovary is removed, while, as a matter of fact, it is nothing more than a perfectly normal ovary filled with Graafian follicle cysts.

Conservative surgery on the pelvic organs does not necessarily mean trying to see how much tissue you can leave, because conservative surgery frequently means radical surgery. Many times you open an abdomen and before you there are your tubes, your big ovaries, and a big tube encircling the ovary making one solid mass of both the tubes and ovaries and the uterus. I do not care what the neurologist says about that class of ovaries. I want to see the man who can remove a pus tube and leave the ovary without having any adhesions. I want to see the fellow who can take a tube out of there without doing considerable mutilation to the uterus. I think it is

far better to go ahead and do a radical operation, and it is more conservative to do it, than to try to leave a mutilated uterus and have numerous adhesions take place because, you will have to do a second operation. The neurologist talks about seeing barrels of ovaries that have been sacrificed every year. They talk about barrels of ovaries like barrels of oysters. When a neurologist takes his patient and goes over her and applies all of his tests, if he can find a scar in the median line of that woman's abdomen he says the ovaries have been removed and she is now suffering from a neurotic condition. He has no more idea that the nervous condition of that woman is caused by the removal of the ovaries than the endocrinologist has of the endocrine system because we have removed some of the ovaries and the internal secretions of the ovaries. I do not think the gynecologist and those of us who are doing pelvic work need bother much about the neurologist anyway, because after that patient falls into the hands of neurologist he cannot do any more for her than the man who operated on her. He will treat her for a while, and then she will come back to you anyhow.

DR. GEORGE R. WHITE, Savannah: I like the way in which the essayist has handled this subject. Most of the papers I hear on conservative operations on the female generative organs are entirely too pessimistic. When you get the pelvic organs, the ovaries and tubes badly diseased, and you have some progressive troubles there, especially an old gonorrheal infection, my experience is that if you save these ovaries or save parts of them you will have trouble as sure as anything, and if you leave a little piece of one or both ovaries it will not be long before a little piece grows in it and becomes a cystic mass, and the patient is just as bad as she was before. I have a paper which I am going to read tomorrow on "Tuffier's Ovarian Graft." I have had some seven years experience with this. If instead of throwing the ovaries away you graft them under the peritoneum somewhere you will save the menstrual function and save all the nervous changes that go with the removal of the ovaries, and by that simple procedure you can help the patient wonderfully. In those cases in which the ovaries are otherwise to be thrown away, I see no reason why that procedure should not be adopted as a routine. When the ovaries are diseased and are put in this new position they cause no trouble. They are finally absorbed after they have done their work. They keep up the menstruation, and the advantage of this little simple procedure instead of throwing away ovaries is so great that I think the time has come when it should be adopted as a routine.

DR. W. FRANK WELLS, Atlanta: I think conservative surgery of the pelvic organs is a good thing. I think a great many of us are too much inclined to add to our number of operations. Medical treatment should be resorted to before operation is undertaken. I think in many cases tubes and ovaries can be saved by treating them for a long time before operation. Then if you do



operate, you are liable to save one tube and one ovary. Too many of us are inclined to operate too soon before we have made an accurate diagnosis or have given local treatment a chance.

Dr. Benson spoke about the glycerin tampons that are used after operation. I have had some patients come to me in whose cases operation was recommended, and they were trying to get around an operation. In one or two of them I thought there was nothing to do but to operate, and they refused. In these I made use of glycerin tampons. Two of these women were pregnant. If I had operated on one of them she would not have had a chance to go through pregnancy, and that was the thing that she was after. If we operate too soon on these cases before we give treatment and nature a chance to cure the patient, we sterilize a great many women who otherwise would not be sterilized if we were more conservative during the first operation.

So far as radical surgery is concerned, when you do surgery I would favor taking out all diseased tissue. Give the patient a chance and with the help of nature you may be able to save a patient from any operation at all.

DR. MARION T. BENSON, Atlanta (closing): I wish to thank the gentlemen for their free discussion. I agree with what has been said, but the mistake the general surgeon makes is in operating upon a woman and then turning her loose. I am dealing with women now and not with general surgery. It is your duty to take care of a woman after you have operated upon her. Many women are nervous wrecks simply because the gynecologist or general surgeon after operating on them has turned them loose and has not given them after-treatment. Many of these cases fall into the hands of the quack, and really they are in a worse fix after operation than they were before. My plea is for the women who are suffering and who need attention.

### AN INTERESTING OBSTETRICAL EXPERIENCE.\*

J. G. Earnest, M.D., Atlanta, Ga.

The operation of Caesarian Section has become so common in the last few years that one hardly feels at liberty to report a case to a medical society unless it has some unusual features of interest. In fact the sudden and wonderful increase in the number of cases reported has been sufficient to create a suspicion that there is in some quarters a lack of appreciation of the seriousness of the operation and the possible end results. The simplicity and ease of perform-

ance and comparative safety with the aseptic surroundings of a modern hospital have no doubt contributed largely to this increase.

At the beginning of my career as an obstetrician I was led to believe that a very necessary part of my equipment would be a pair of morcellation forceps for the purpose of breaking up the head of the foetus when the pelvis was supposed to be too narrow to allow it to pass. I found that pair of forceps to be a very useful instrument for pulling nails, etc. about the house, but I am happy to state that they have never been used for the purpose for which they were originally intended. Early in my career I made up my mind that when a pelvis was so small that it left only a choice between morcellation and Caesarian section I would do the section without hesitation. It has been my good fortune, however, never to have encountered a case where the pelvis was so small that I could not do a high forceps delivery without serious injury to the mother or child. Waiting on nature in such cases sometimes taxes the endurance of the mother and the patience of the busy doctor heavily. Nevertheless, it is worth while to wait and give nature a chance. By doing so what at first looked like a hopeless prospect for delivery of a live child per vias naturalis on account of the disproportion between the size of the child's head and the pelvic outlet is so changed by the lapping of the bones of the head as to make a forceps delivery not only possible but sometimes not very difficult. In spite of such experience as this by most men of large practice it has been recently intimated that there is no longer any place for high forceps delivery—a dictum that the profession will probably be slow to accept.

Originally and for many years an abnormal narrowing of the bony pelvis was supposed to be the only condition that justified the opening of the abdomen for the delivery of a pregnant woman. But the advance in our knowledge and modern methods of surgical procedure has widened the scope of Caesarian section so that other conditions complicating pregnancy are now more safe-

\* Read before the Medical Association of Georgia, Rome, Ga., May 4—6, 1921.

ly managed by that method than any other, —notably, under certain circumstances, cases of placenta previa. It has recently fallen to my lot to have the responsibility of such a case. I have seen two cases previous to this one of complete central emplacement of the placenta. The first one occurred when I had only been practicing a few years; the other was a patient of an old friend who has passed to the beyond several years ago. He called me in the night on account of the alarming hemorrhage of his patient, which was found to be a case of placenta previa. In this case as in my case above mentioned the pelvis was roomy and the cervix uteri soft and yielding so that under chloroform, there was no difficulty in doing a rapid dilatation, forcing the hand through and grasping the feet of the child and bringing the trunk down so as to stop the hemorrhage by pressure after the fashion in common use in such cases. I had the good fortune to save both cases.

The case which I now wish to report in detail presents an entirely different picture. She was first seen by me August 1st, 1920—a normal, healthy woman aged 35 years, mother of two children, the youngest nine years old. At that time she was supposed to be two months advanced in pregnancy. Her condition seemed to be normal, was without any unusual feature save a slight show of blood a few days after I first saw her. The flow was very slight, lasting but an hour or two and was not considered important. Labor was supposed to be due about the 5th of March. I examined her on that day and was surprised to find the cervix high up in the pelvis, quite hard and apparently no larger than when I first examined her. The child could not be felt through the vaginal vault, but, was easily made out through the rather thin abdominal walls and was active. I concluded that there must be some mistake in the calculation of time, but, the mother insisted that was impossible. There was nothing to do it seemed but, wait developments as there was nothing in the conditions in the vagina indicating the near approach of labor.

I heard nothing from her for twenty days.

The evening of March 25th when she called me by telephone saying she did not feel well but had no labor pains.

I went to see her after supper and was surprised to find very little if any change in the conditions in the vagina—cervix just as hard as when examined twenty days before and no dilatation. I was leaving to go home when she called me back and told me she was having some flow of blood. I examined her and found she was bleeding quite freely. I then realized for the first time that it must be a case of placenta previa and the thing to do was to get her in the hospital as soon as possible. I felt sure that under existing conditions it would be impossible to dilate the womb and deliver her before she would bleed to death. The thought of packing the vagina tightly with sterile gauze as a means of limiting the flow to some extent occurred to me, but, as I had no suitable material at hand I lost no time in getting an ambulance and transferring her to the Georgia Baptist Hospital. When she arrived there it was apparent that she had bled very freely on the road and her pulse was barely perceptible. I placed her at once in the knee-chest position and packed the vagina tightly with sterile gauze, hoping by that means to limit if not to check entirely the flow for a time and allow her circulation to pick up sufficiently to stand the ether and a quick operation. She was placed on her back in bed, the foot of the bed elevated, and given a dose of adrenalin hypodermically. Occasionally during the night her pulse would have sufficient volume to be distinctly felt, soon to be followed by an interval in which it seemed a mere flicker. About seven o'clock in the morning it began to be a little more steady and by half past eight there was considerable improvement—so much that I felt that it was my best chance and sent her to the operating room where everything was in readiness for abdominal section. She had 1/30 gr. strychnine per hypo—followed by ether anesthesia while normal salt solution was being infused under the breast. To open the abdomen and empty the womb did not take more than



five or six minutes. My assistant then brought the womb out of the abdomen and kneaded it firmly while I closed the opening in the womb with chromic catgut. It contracted promptly and was dropped back into place. The abdominal opening was then closed—the peritoneum with plain catgut, continuous, and the skin and fascia with silk worm gut interrupted.

The child was large and well developed, but had evidently been dead for some time as the skin was slipping on it.

Her recovery was a little slow at first; but, she was able to leave the hospital in good shape twenty-one days after the operation.

### **FELVIC INFECTION IN THE FEMALE.\***

Lemuel J. Johns, A.B., Ph. G., M.D.,  
Tallapoosa, Ga.

Although there are few subjects in the field of gynecology and obstetrics about which there has been as much discussion as pelvic infection in the female, it should not be considered by us as trite or time-worn when we recall that by far the greater percentage of all cases of female invalidism can be directly traced to the dire results of pelvic infection. It furnishes the surgeon with abundant material for operative procedures and constitutes the chief concern of the obstetrician.

For convenience we shall divide the subject into two great classes or types, viz: type 1, the descending or bloodstream infections and will include infection by contiguity of tissue; type 2, the ascending infections which will include pathogenic bacteria introduced into the uro-genital tract and infections resulting from the action of ever-present bacteria upon points of lowered resistance from various causes. Since this second type or grouping of diseases is largely preventable and is by far the more important, it will occupy the greater part of our time and attention in the discussion that is to follow.

In type 1 the descending of blood-stream infections are usually metastatic conditions secondary to generalized bacteriemias or septicemias from such organisms as the tubercle bacillus, the streptococcus, the pneumococcus, the colon bacillus and other well-known organisms producing parametritis, perimetritis, peritonitis, salpingitis, and oophoritis. Appendicitis with its sequelae may be mentioned as the most prolific source of infection by contiguity. Degeneration of pelvic tumors and extension of inflammatory conditions from adjacent bowel may also in some cases give rise to infection by contiguity of tissue. These conditions are largely non-preventable, and the general condition of the patient together with the judgment, experience, and ability of the physician will be the guide for treatment. Incidentally, operations for relief may be performed with greater impunity in this than in the second or ascending group of infections.

The vast majority of infections are of the second grouping or ascending type, and of this there are three subdivisions; namely, (a) the puerperal, (b) the gonorrhoeal, and (c) that infection incident by reason of operative procedures where the technique is imperfect and pathogenic bacteria are introduced into a clean field thereby rendering it an unclean case. Sepsis accounts for 30 to 35 per cent of deaths during pregnancy and labor. It easily ranks first, with toxemia second, hemorrhage third, and death from embolism and other causes fourth. Dr. Grace Meigs, of the Department of Labor of the United States of America, in a report shows that during the 23 years ending in 1913 no definite decrease in the death rate of child-bearing can be demonstrated in the death registration area of the United States. Statistics seem to show that the same percentage of mothers are dying now as in previous years, and that in rural communities and in cities without maternity hospitals the percentage remains about the same. Of course well-regulated hospitals do not have the scourge of puerperal infection that was present in days before surgical asepsis was developed; but outside of Lying-

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in hospitals and the present day specialist in obstetrics the morbidity and mortality of child-bearing is yet much too high.

During the past thirty years death from many diseases has been reduced to a satisfactory minimum. Between 1890 and 1915 the death rate per 100,000 population for tuberculosis in the death registration area of the United States fell from 252 to 145; diphtheria and membranous croup from 97 to 15; typhoid fever from 46 to 12; pneumonia from 186 to 82; entero-colitis in infants from 139 to 59. In the year 1860 the death rate per 1000 births was 1.4; in 1913 it was 1.3, thereby showing no appreciable improvement. For the year 1915 in the registration area of our country there occurred in women 29,200 deaths from tuberculosis; 10,134 from child-birth, of which number 4,200 were from puerperal sepsis, and this does not include those who were rendered chronic invalids for life but escaped death; 8,766 from various circulatory disturbances; 6,458 from all kinds of digestive disturbances; 5,549 from pneumonia, all types; 5,424 from cancer and other malignant tumors; 647 from syphilis; and 174 from gonorrhoea.

It is very evident that asepsis in technique is not being observed or followed by the majority of practitioners. It is a regrettable fact that in our rural communities and in a good many of our villages the doctor enters the home, makes an examination under a sheet without preparation of the patient or perhaps even of himself, uses hog lard for lubricant, delivers baby sight unseen without ever a thought of holding back the perineum to prevent laceration, ties the cord with sewing thread, and cuts the cord with the household scissors. Is it any wonder that the mother pays the penalty with chronic invalidism or death? The splendid work of our eminent specialists along these lines is ample proof that these figures are not the result of lack of scientific knowledge regarding obstetrical problems, but rather a failure of application of this knowledge on the part of most of us as we hurry through the day's routine. Intelligent women of this day and age should not

accept such appalling statistics of childbirth as a sacrifice which they must needs lay on the altar of mother-hood, for the time has passed when the function of woman must necessarily be cloaked with fatalism and guided by ignorance.

In the very young the vagina is practically sterile. But such is not the case with older females, for millions of bacteria make their home in and around the external genitals. The normal flora of the vagina seems to have a germicidal effect, probably due to the acidifying action of the bacteria; for it has been shown that pathogenic germs decrease directly as we approach the cervix. Consequently anything interfering with the normal vaginal flora such as strong antiseptics, frequent douches, the alkaline leucorrhoeal discharge, cervical erosions, menstrual periods, etc., predispose to endometritis and pelvic infection.

There is a certain small percentage of cases of so-called "auto-infection" whereby the patient is supposed to infect herself and the technique is perhaps not at fault. By reason of a long and arduous labor, an exhausted condition of the patient, any abrasion in vagina or cervix, or trauma by forceps the bacteria not entirely removed by preparation take hold upon this point of lowered resistance and decreased vitality and wreak their vengeance upon the poor patient directly and unsuspecting doctor indirectly.

Septic abortion falls in the same category with puerperal sepsis, both being caused by the streptococcus, staphylococcus, gonococcus, colon bacillus, and the pneumococcus in the order mentioned. These acute infections, whether parametritis caused by the streptococcus, staphylococcus, pneumococcus or colon bacillus, or whether endometritis, salpingitis, or oophoritis caused by the gonococcus should be treated by absolute rest in bed, perfect quietude, eliminative and stimulative treatment, opiates, douches and packs as needed, without any meddlesome treatment in the vain hope of killing off the germs; in fact, the more virulent the type of organism the less meddlesome the treatment in the acute stages. Even in in-

complete septic abortion, except in cases of uncontrolled hemorrhage, there should be no uterine curettage until the patient has been free from fever for at least five or six days. In cases of criminal or attempted criminal abortion, if there is perforation it should be diagnosed and operated upon before the advent of pelvic peritonitis. Just here I would like to utter a word of warning against the indiscriminate and promiscuous use of the uterine curet, and to say that its legitimate field in gynecology and obstetrics is being narrowed down to more definite limitations as these sciences make newer progress. The principal reasons for curetting the cervix and the body of the uterus are to secure material for diagnostic purposes, to remove the products of conception that can not otherwise be extracted, to remove mucous polypi in the treatment of exfoliative endometritis, to remove calcareous areas formed by calcified submucous fibroids, and in some cases of chronic endometritis causing sterility. Its dangers are ever present, whether in the hands of the skilled surgeon, or as it is laxly done in the home or at the office with a great degree of surgical uncleanness by the ordinary practitioner.

Next after the streptococcus the other ascending infection most generally met with is that produced by the gonococcus. Gonorrhoea of tubes and ovaries is a menace to the host as to reproductive functions and general health, but fortunately it rarely produces death when not interfered with by untimely treatment. Mild tubal infections may permit conception. In many instances dormant gonococcal foci may remain latent until labor ensues, after which they make awake to become active causing mild degrees of sepsis, producing salpingitis or oophoritis even where no vaginal examination has been made. Gonococci are not motile and they spread by surface growth or deportation. They are usually confined to tubes and ovaries producing tubal or tubo-ovarian masses, and seldom if ever enter the parametrium to produce parametritis. Conditions favoring ascent are menstruation, labor, coitus, digital or instrumental

examination, and douches with unclean apparatus. Gonorrhoeal vaginitis in children never extends above the closed internal os; and in a large series of autopsies in young girls dying from other causes but having a concomitant specific vaginitis, I have never seen evidences of pelvic infection.

The lesions of chronic pelvic inflammation in operative treatment may be grouped into three main classes: first, chronic salpingitis without an associated parametritis, but including pelvic peritonitis with exudate and adhesions existing after the tubal inflammation has largely subsided or been reduced to a simple hydro-salpinx; second, chronic pelvic cellulitis, also known as parametritis. This may consist of walled-off pus collections, or a marked cellular infiltration causing induration and pressure pains; third, chronic oophoritis. This class includes chronic cellular infiltration of the ovary, resulting in cirrhosis or cystic formation. The technique of operation varies with the character and the causative agent of the lesion present. The first group in the classification referred to immediately above is nearly always caused by the gonococcus. The inflammation extends up the uterine mucosa and into the tubes and ovaries, but practically never penetrates the uterine wall into the parametrium. The second group is nearly always formed by one of the strains of the streptococcus. Unlike the gonococcus it penetrates the uterine wall invading the parametrial tissues and from thence to the peritoneum causing peritonitis. Streptococcal pyosalpinx without an associated parametritis is indeed a rare condition; gonococcal pyosalpinx with a parametritis is indeed a rare condition. The parametrium consists of super-imposed layers of unstriped muscular bands running into the uterus and outward forming sheaths for the obturator and coccygeus muscles. It is densest opposite the lower uterine segment, really forming a uterine pedicle. Bearing in mind this anatomical description, it is easy to understand the brawny or board-like infiltration felt around the cervix which characterizes streptococcal infection. Therefore it is readily seen that gonorrhoeal



and streptococcal infection differ in two main particulars, namely, the cause of the trouble and the location of the lesion. It is necessary to establish this differential diagnosis as a guide to the time and manner of later operative treatment, the treatment for these acute stages having been given in the preceding paragraphs. The characteristic lesion, therefore, of gonorrhoea in the pelvis is pyo-salpinx, with or without the complicating oophoritis and pelvic peritonitis. The acute stages must have passed and all acute symptoms subsided before operative procedures can be safely instituted. It is estimated by Crossen that an interval of three or four months must elapse for gonorrhoeal pus before auto-sterility takes place by death or attenuation.

The distinguishing characteristics of chronic streptococcal pelvic infection is connective tissue inflammation or parametritis, consisting of either walled-off abscesses or brawny infiltration. This infiltration blends with the pelvic wall and extends low down around the cervix, with or without pyo-salpinx and pelvic peritonitis. There are certain conditions to be fulfilled before operation may be done safely; namely, the patient shall have recovered from her acute illness and gained a satisfactory margin of reserve strength; the temperature shall not have risen for a period of at least four to six weeks; there shall have been no systemic reaction manifested by chills and fever on a careful bi-manual examination; and lastly, the inflammatory exudate shall have at least been largely absorbed. However, the virulence of streptococci may persist indefinitely, especially if they have become encysted; and although giving no systemic reactions, when disturbed operatively they may flare up producing fatal peritonitis. Hence operations are dangerous for an indefinite period and must be safeguarded by a careful history of the case and a full knowledge of the patient's condition.

The strictest surgical cleanliness and a most painstaking asepsis on the part of both surgeon and patient is enjoined to prevent the introduction of foreign pathogenic bacteria into the operative field, thereby caus-

ing death and devitalization of organs and parts which might otherwise have escaped injury. It is with much pride for the profession at large that we can say that the introduction of aseptic methods, pre-operative treatment, and technical skill have made surgery so safe that one thinks little of doing a laparotomy for diagnostic purposes alone. The divine art of healing is indeed a glorious one, and may its tendencies be ever onward and upward and may we keep it circumscribed and hedged round about by the highest principles of morals and faith.

#### Discussion on the Paper of Dr. Lemuel J. Johns.

DR. GEORGE F. KLUGH, Atlanta: There is one feature of this paper I would like to stress, and that is, that infections elsewhere in the body are likely during labor to metastasize and become localized in the uterus. Dr. Reynolds, of Boston, has carried on interesting experiments on animals along this line. He operated on animals and at the same time injected cultures of bacteria, and as mentioned they would localize at the point of operation.

The mortality in childbirth, even in the best regulated hospitals, has not kept pace with the progress in asepsis, and it will be found that one of the main reasons is that if an obstetrical patient has other lesions, and these are usually due to the streptococcus, they are quite likely to cause puerperal sepsis.

Dr. E. C. Cartledge:

The paper was an excellent one, and I enjoyed it very much. There are a few suggestions in it that I would like to refer to. I understood the essayist to be one of those who say that an infected uterus, that is, one with infected placental or foetal remains, should not be emptied. It is impossible for me to occupy such a position. Here, as elsewhere, drainage is the great necessity in infections. It is unfortunate that the reaction from the sharp eurette must swing so far the other way to such a position. The loop ended sponge forceps is the ideal instrument for emptying the uterus, a dull eurette being used only for administering the hot saline intra-uterine douche. Incidentally, I think it a crime to use Lysol, Bichloride, or any other chemical in an intra-uterine douche. If there is any real zone of protection established about this form of infection the manipulation can be done without violence or spreading the infection. The essayist said that we should not operate on pelvic infections until fever has subsided. If he means puerperal infections I have thoroughly disagreed with him, as above. If he means Neiser infections he is 95 per cent. correct. There are occasionally cases we see where a Neiser infection of 3 or 6 months previously, has become a mixed infection



with multiple pelvic abscesses, a plastic exudate, and grumous deposits covering uterus and a loop or two of intestine, etc., where we have a running septic temperature with slight chills and progressive emaciation. These cases must be operated and drained.

When I left my internship at the Hospital I thought every gonorrheal pus tube should be taken out sooner or later. I never shall forget about the first pus tube case I had in private practice. The other Physician and I told her she must have an operation. She didn't. I had never seen a pelvis and tubes more full of pus. When I saw her next, 8 or 10 years afterwards, she had 3 beautiful children and was well and happy. I believe the great majority of these will get well, if they can be kept in bed from the very first.

Now, I come to challenge one thing which the essayist said and which creed he offers us, not from experience, but from the obsolete pages of text books. In my practical experience, the only way to hold back a too fast advancing head is with chloroform or ether. Where the pains are strong the opposing hand is helpless to hinder the advancing head. In a case where the pains and advancing head could be controlled by a hand against the perineum, the procedure would be bad anyway for two reasons. The hand against the child's advancing occiput would tend to destroy the caput succedaneum and the overlapping bones and elongated condition of the head, thereby increasing the diameter of the head, and increase the liability to tear. Secondly, the hand pressure against the perineum would exsanguinate the tissues under pressure, and subject the perineum to a greater liability to tear. Nature seeks to prevent this very condition by giving an intermission between pains so that new blood may come in and maintain the life and elasticity of the tissues.

DR. LEMUEL J. JOHNS, Tallapoosa (closing): I shall not take up any further time except to thank the gentlemen for their free discussion of the subject and to emphasize one or two points that were brought out.

First, we must diagnose the bacterial cause of the infection with which we are dealing. Second, we must not be hurried into an operation before the proper time arrives if we do not want a high mortality in our operative patients.

### RECENT IMPROVEMENTS IN THE DIET- ETIC TREATMENT OF DIABETES MELLITUS.\*

James Edgar Paullin, M.D., and Harold M.  
Bowcock, M.D., Atlanta, Georgia.

The dietetic treatment of diabetes mellitus can be considered as satisfactory only when

it fulfills certain requirements, which are as follows: (1) The patient's urine must be rendered sugar-free and remain so. (2) The blood sugar must be maintained at an approximately normal level. (3) The development of acidosis must be prevented and the blood and urine remain relatively free from acid bodies. (4) The diet must be adequate for the maintenance of nutrition and permit of a reasonable amount of bodily activity. (5) The diet should not be repulsive to the patient. The fulfillment of these requirements is a relatively simple task in the mild and moderately severe cases of diabetes, particularly in the large class of adults who have passed 40 years of age and show a mild degree of arteriosclerosis and kidney impairment, provided the diet is chosen wisely and the patient is anxious to cooperate. On the other hand, the treatment of severe cases of diabetes, particularly in children and young adults is most difficult. Any dietetic regime which aids in approximating the above requirements may be considered an improvement.

It is impossible to outline a successful dietary regime until the patient has been subjected to a thorough and painstaking examination in order to discover and eradicate any foci of infection and to determine the severity of the disease. In addition to the routine physical examination, a quantitative determination should be made of the urinary sugar, blood sugar, and carbon dioxide combining power of the blood plasma or the alveolar carbon dioxide tension. The urine should be tested for acetone and diacetic acid. In mild and doubtful cases the glucose tolerance test should be performed.

The dietary treatment is carried out in stages, by first rendering the patient's urine sugar-free, and then gradually increasing the diet to the desired level. During the entire procedure it is essential to examine a 24 hour specimen of the urine daily for sugar and acid bodies, and to follow the alveolar carbon dioxide tension and the blood sugar.

It has been customary for the most part, to reach the sugar-free state by means of

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.

starvation, allowing the patient only strained meat broth, tea, coffee and water for one or several days. This method, aside from being distasteful to the patient may be a source of harm as starvation increases the degree of acidosis and may precipitate diabetic coma. We have found it safer to attain the sugar-free condition by the use of small amounts of the so called five per cent vegetables, as recommended by Ohmsted. These vegetables contain approximately five per cent of carbohydrates which is utilized so slowly as not to appear in the urine. We usually start the patient off on about 100 grams of five per cent vegetables and 150 grams of 'thrice cooked vegetables' three times daily. This amount tends to appease hunger, and the ingestion of this small quantity of carbohydrates helps to clear up the acidosis. O'Reilly and McCabe have shown that the available carbohydrates in thrice cooked vegetables is inappreciable, but they are useful in allaying hunger by virtue of their bulk. By the end of several days most patients are sugar-free and the acid bodies have practically disappeared from the urine. As a rule, the use of bicarbonate of soda is not necessary.

After rendering the urine sugar-free, we are confronted by the problem of building up a suitable diet. Until the recent work of Newburgh and Marsh, it had been customary to give a diet, high in protein and low in fat and carbohydrate because of the fear that a high fat diet would precipitate a dangerous acidosis. This type of diet is quite satisfactory in mild diabetics who do not suffer from marked renal impairment. In severe cases of diabetes however, the high protein diet is unsatisfactory as a little more than half of the protein which is necessary in a maintenance diet appears in the blood in the form of carbohydrate. Consequently, with the use of the high protein diet the urine continues to show sugar, or the blood sugar remains abnormally high. The persistence of a high blood sugar is undesirable even though no sugar appears in the urine, for it is well known that under such conditions the complications of diabetes will develop. We are grateful to Newburgh

and Marsh for the practical demonstration in seventy-three cases of diabetes that it is possible to utilize a diet, high in fat, and low in protein and carbohydrate content and still satisfy all of the requirements for safe and scientific dietetic therapy. We have had the opportunity of verifying their findings in about twenty cases of diabetes, five of which occurred in children and young adults. These five individuals suffered from the disease in a very severe form and it had been impossible to obtain satisfactory results with a high protein diet. In spite of starvation days and green vegetable days they continued to show a glycosuria and high blood sugar when taking a maintenance diet. With the "high fat diet" the results have been most striking; they have been able to take a diet of higher caloric content and to gain slightly in weight and considerably in strength; they feel much better, they remain free from urinary sugar and acid bodies, and their blood sugar has remained at an almost normal level. It is likely, that due to the manifold metabolic factors involved in diabetes, an occasional rare case will be found in which the "high fat diet" will not give as satisfactory results as some other type of diet, but thus far, no such case has come to our attention.

The following tables show a comparison of one day's menu of a "high protein" and "high fat diet" of approximately the same caloric value:

#### "HIGH FAT DIET"

Food	Amount grams	Protein grams	Fat grams	Carbo- hyd grams	Calor- ies
DINNER					
Boiled ham .....	50	10.10	11.20	.....	145.5
Butter .....	10	.10	8.50	.....	79.3
Asparagus .....	100	1.80	.20	2.40	19.0
Cabbage salad:					
Lettuce .....	15	0.18	0.04	0.33	2.5
Onions .....	15	0.24	0.04	1.20	6.9
Cabbage .....	30	0.48	0.90	1.20	8.9
Mayonnaise .....	40	.....	26.72	.....	255.2
		12.90	46.79	5.13	517.3
SUPPER					
Egg omelet .....	1	6.03	4.72	.....	66.6
Butter .....	10	.10	8.5	.....	79.3
Cucumber salad:					
Lettuce .....	15	0.18	0.04	0.33	2.5
Cucumbers .....	100	.80	.20	2.30	15.0
French dressing:					
Oil .....	30cc	.....	26.00	.....	279.0

Vinegar, salt and pepper.....	100	2.30	0.30	6.00	37.0
String beans.....	10	.10	8.5	-----	79.3
Butter.....		9.51	48.26	8.63	558.7

## BREAKFAST

Boiled egg.....	1	6.03	4.72	-----	66.6
Butter.....	15	.15	12.7	-----	119.0
Bacon.....	30	3.15	19.44	-----	193.5
Tomatoes.....	60	0.54	0.24	1.98	12.6
Cream.....	15	0.34	2.77	.67	29.1
Coffee.....		10.21	39.87	2.65	420.8
Total.....		32.62	134.92	16.41	1,496.8

## "HIGH PROTEIN, LOW FAT DIET"

Food	Amount grams	Protein grams	Fat grams	Carbo- hyd grams	Calo- ries
DINNER					
Clear meat broth....	200cc	4.4	0.4	-----	22.0
Round steak, lean....	150	41.4	11.55	-----	277.5
Tomatoes.....	200	1.8	.80	6.60	42.0
Lettuce.....	100	1.2	0.30	2.20	17.0
Egg Plant.....	50	0.6	0.15	2.65	12.5
Cottage cheese.....	100	20.9	1.00	4.30	112.0
Gellatin jelly.....	70	4.6	-----	-----	-----
		74.9	14.20	15.75	502.0
SUPPER					
Halibut steak.....	200	37.2	10.40	-----	248.0
Cauliflower.....	200	3.6	1.0	8.6	60.0
Beet greens.....	100	2.2	3.4	3.2	54.0
Eggs.....	1	6.03	4.72	-----	66.5
Cheese, American pale.....	50	14.4	17.95	0.15	226.0
		63.43	37.47	11.95	654.5
BREAKFAST					
Eggs.....	2	12.06	9.44	-----	133.0
Ham, smoked, fried....	50	11.2	16.60	-----	200.0
Coffee or tea with cream.....	10cc	.23	1.85	0.45	19.4
		23.49	27.89	0.45	352.4
Total.....		161.82	79.56	28.15	1,508.

The diet which should be chosen for a particular individual is dependent upon that individual's tolerance to carbohydrate, his age and his weight. We have simplified the management of an increasing "high fat diet" by the use of the diet tables appearing in the paper by Newburgh and Marsh, and by supplementing these with diets made by ourselves, so that we have daily menus ranging in caloric value from 900 to 2,000 calories. The tolerance is determined by substituting on successive days, diets which give an increase of 100 to 150 calories in the food intake, the increase being controlled by urine and blood examinations until the required diet is reached. This determination should be carried on in a hospital where the facilities are at hand to make the num-

erous laboratory examinations; we cannot emphasize too strongly the importance of these examinations with the use of the "high fat diet", particularly the tests for acid bodies in the urine. As an aid to treatment, each patient should own Joslin's "Diabetic Manual" which contains much valuable information concerning their disease and many helpful tables of food values. The lantern slides of food values were taken principally from this booklet. It should not be amiss to state parenthetically at this point that such articles of food as sweet milk, toast, crackers, and a great many of the so called diabetic flours are not suitable articles of diet for diabetic patients because of their high carbohydrate content, although they are much used by those who are not familiar with food values.

The home treatment of diabetes requires constant medical supervision. The patient should be taught to weigh their food and to examine their urine for sugar and acid bodies. Their physician should examine an occasional 24 hour specimen of urine, and a blood sugar determination should be made about once a month.

It is admitted that the above regime involves considerable trouble to both patient and physician but with the means of treatment now at hand, both are repaid by the results obtained.

### THE USE OF VACCINES IN CHRONIC BRONCHITIS.\*

Geo. F. Klugh, B.S., M.D., Atlanta, Ga.

The frequency with which we have acute infections of the respiratory tract renders it especially liable to chronic conditions or complications as a result. Practically all of the acute infectious diseases are ushered in by an acute catarrh of the upper respiratory tract forming a good starting point for an infection of the bronchi. Common colds, measles and influenza lower the resistance so frequently and so constantly that the

\*Read before the Medical Association of Georgia, May 4th, 1921. From the Laboratories of Drs. Bunce, Landham and Klugh, Atlanta, Ga.



body is often unable to throw off secondary invaders. After these epidemics we find large numbers of patients suffering for weeks and months with chronic bronchitis. Many of these have a dry non-productive cough, paroxysmal or asthmatic in character. Others clinically resemble tuberculosis and expectorate more freely. Both types usually become anemic, lose strength and weight rapidly and usually run a slight afternoon temperature. If allowed to run on they are quite likely to have metastatic infections in other organs.

The organisms most frequently found by us in these conditions are hemolytic streptococci, streptococcus viridans, pneumococci, staphylococci, micrococcus catarrhalis and large Gram negative bacilli, occasionally the influenza bacillus.

Evidently the treatment for this condition consists in building up the patient's resistance and immunity. Rest, diet, and symptomatic treatment are of course important here, but vaccines are as valuable here as in other chronic localized infections. Much depends on proper preparation of the vaccines and judicious administration. Since we almost always have mixed infections in these conditions it is essential that all of the organisms present in a given case be included in the vaccine. To prepare the vaccines we obtain specimens of sputum in sterile Petri dishes or wide mouth bottles as is done for pneumococcus typing. Care is taken to get material coughed up from the bronchi as free as possible from saliva. Specimens obtained in the morning are usually best. Cultures and smears are made from particles or lumps rather than from the watery portions. The smears are made from the original material to show organisms present and their relative proportions. The cultures are grown on special media from 24 to 48 hrs and where possible vaccines are prepared from the original cultures so that we get the organisms roughly in proportion to their number in the sputum. Blood Agar plates made by adding from 3 to 5% of defibrinated blood to plain agar is used to grow and differentiate such organisms as the influenza bacillus, strep-

tococcus viridans and the hemolytic streptococci.

Best results are usually obtained by giving small doses at intervals of 3 to 5 days over a long period of time. To avoid severe reactions, it is best to start with a small dose and increase until the desired reaction is obtained. Usually a chronic condition is changed into a subacute condition by vaccines. Too large or too frequent doses in subacute or acute conditions are likely to cause too severe reactions both local and systemic. Where severe reactions occur the dose should be reduced and sufficient time allowed for the reaction to subside before giving another dose.

Failures are due to the following causes:

First: Improper collection of specimen and failure to include all of the organisms present.

Second: Improper administration of vaccine.

Third: A certain proportion of patients fail to make antibodies in appreciable amount.

### Case Reports.

Case 1. Mrs. G. W. Age 35.

Had asthmatic cough for 6 mos with very scanty expectoration. Attacks were very severe, causing loss of sleep, loss of weight and general incapacitation. Cultures from sputum contained streptococcus viridans, pneumococci and micrococcus catarrhalis. Small doses of vaccine caused severe systemic reaction and increased expectoration. Asthmatic attacks were relieved after two or three doses. Complete cure after ten doses.

Case 2. Mrs. T. Age 50 years.

Had severe attack of influenza in 1919, mild attack in spring 1920, followed by asthmatic bronchitis for 1 year, loss of sleep, and weakness. Cough was dry and expectoration scanty. Sputum contained pneumococci and streptococcus hemolyticus. Autogenous vaccine was followed by relief from cough and general improvement.

Case 3. Miss H. Age 26.

Acute attack of influenza in 1918 followed by two relapses on trying to go back to work. Cough with moderate expectoration,

loss of weight and weakness. Sputum contained streptococcus hemolyticus. Vaccine was followed by immediate cessation of cough and complete recovery.

Case 4. Miss L. Age 26.

Severe bronchitis 3 mos. duration. Cough with profuse expectoration. Had lost weight rapidly, was weak, and had night sweats. Sputum was examined repeatedly for tubercle bacilli. Pneumococci were very abundant. Autogenous vaccine was followed by immediate cessation of cough and other symptoms. She gained 20 lbs. in less than 2 mos.

Case 5. Miss T. Patient of Dr. C. P. A. with following extract from his letter: "Miss T. had presented an old bronchorrhoea which had been present with her some sixteen years. She expectorated several ounces a day the year around. The most rigid physical examination never showed anything tuberculous and had made the autogenous vaccine as an experiment. We have about used up the vaccine which you sent. The girl has gained fourteen pounds in weight; is coughing much less and expectorates only about one-fourth of what she formerly expectorated. She and all of her friends say the girl is better than she has been any time in her life." This patient's sputum contained staphylococcus aureus, streptococcus viridans and influenza bacilli. Case 5 is unusual in that it was of such long standing. The other four are typical of a number of others such as we see from day to day.

Healey Bldg.

### THE ROLE OF THE TOOTH AND TONSIL IN SYSTEMIC INFECTIONS.\*

E. S. Osborne, M.D., Savannah, Ga.

Uneasy lies the head that wears the dental crown. The greatest cause of pus in the mouth is gross neglect of the hygiene of the mouth, but probably the next in frequency as a cause of pus in the mouth is dental work; there are comparatively few mouths with a considerable amount of dental work

that are free from it; we know that a large percentage of dead teeth have abscesses on their roots and that the crowns and bridges that touch the gum cause an irritation and leave pockets that afford lodgement for food particles that accumulate and putrefy; pus pockets form in such locations frequently causing extensive destruction of gum and alveolar process which later on may become more general as pyorrhoea.

Dental authorities agree that if a tooth is properly prepared for a crown it is devitalized; Duke states that he has found that more sepsis was derived from teeth which were apparently vital when crowned, than from teeth which were purposely killed and left with the root canals relatively well filled. Nature protects the tooth with enamel and bathes the enamel in saliva; whenever we try to improve on God's handiwork we will probably be disappointed in results; Thoma states that the pulp can be easily infected by way of the dentinal tubules which can be easily entered if the enamel has been removed; in preparing a tooth for the shell crown a large part of the enamel is ground away allowing easy access to infections of the pulp, the tooth is not bathed in saliva as nature intended which is necessary for the health of the enamel, food accumulates and putrefies in the pockets left between the tooth and crown, as the crown usually extends below the margin of the gum it is a source of irritation to the gum predisposing to pyorrhoea; to smell one of these crowns after removal would make the municipal garbage dump sweetly scented by comparison.

The Public Health Service protests against this fixed crown and bridge work; stating that fixed bridge work will not be authorized except in those cases where it is clearly shown that the use of a removable appliance is not practicable, while it is anticipated that a great many dental examiners will indicate fixed bridge work in all cases but the same will not be allowed. Thoma states that over-dentistried teeth are of a most deceiving nature, gold crowns and bridges always come under suspicion, it makes no difference whether the gums are inflamed

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.

or normal, or if there are no signs and symptoms of inflammation their condition should be ascertained by the X-Ray.

Today we know that grave affections of the heart, kidney, joints, etc., may arise from pus pockets or abscesses in tooth or gum; the physician should look after the prophylaxis of the mouth and not the least of this is to see that good teeth are not destroyed under the pretext of doing crown and bridge work; the public has suffered greatly from this, all the while paying well for it, as if false teeth were a luxury and killing teeth a costly privilege.

The importance of a comparatively good root canal filling in devitalized teeth may be inferred from a series reported by Black, who found only 8% of abscesses when root canal was comparatively well filled, whereas 65% were abscessed when the root canal filling was poor.

The medical profession should not be placed in the position of trying to convict the teeth as a casual factor in all systemic infections, nor should we rely solely on the X-Ray, this information is valuable as corroborative evidence, it is only a shadow however and should not supplant a painstaking examination of all clinical signs. Recently a civil engineer gave me the clinical history of muscular rheumatism in the muscles of the calf of the leg, this was of several months' duration, he could not put the foot to the ground and sleep was almost impossible; the trouble seemed to be explained when several granulomata were discovered on his teeth, extraction of diseased teeth and treatment of granuloma did not improve his condition; all symptoms rapidly disappeared when a small pus pocket around the big toe nail of the affected leg was discovered and drained.

A ship captain complained of his inability to swallow, the teeth were in good condition apparently, he had a crown on a superior lateral incisor but X-Ray was negative; respiration became difficult and just when a tracheotomy seemed imperative an abscess pointed over the crown lateral incisor, was opened and all symptoms cleared up. I have repeatedly seen patients with ex-

tensive granulomata enjoying perfect health for years, their bodily resistance was evidently sufficient to destroy the poison; this is no argument against cleaning up the mouth, the danger lies in the fact that we can never tell when some intercurrent affection may so lower the vitality that the system may be overwhelmed by focal infection.

It is seldom possible to state with certainty that a particular systemic infection is of dental origin as some of the apparently worst septic foci do not seem to give trouble and again seemingly normal teeth may be the foci responsible; the resistance of the individual, the relative immunity is always a factor.

What has been said of the tooth affections is also applicable to the tonsil, the hypertrophied tonsil that pus or cheesy material can be squeezed out of, do not always give rise to systemic infection; on the other hand an apparently normal tonsil may have pus in deeply buried crypts that cannot be discovered by any means. Practically all tonsils have cheesy material squeezed out when the snare is used for their removal, but this does not mean that all tonsils should be removed. Barnes states that "The tonsil should by all means be respected as a functioning organ, especially in children and should never be removed without adequate cause. But when such cause exists the loss of the functioning power should not be used as an argument against their complete extirpation."

Don't condemn all tonsils. There should be definite indications for their removal, that should they remain would be a menace to the system. It is seldom possible to say with certainty that a given systemic infection is of tonsillar origin, but if the infection is sufficiently grave the operation as an experiment is justifiable. Don't rush patients into operation on insufficient evidence to incriminate the tonsil, but when you are reasonably sure they are a menace their enucleation is demanded.



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Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****A PRACTICAL SUBDIVISION OF  
ALBUMINURIAS.**

Physicians are frequently being called upon to interpret the presence of albumin in the urine. Sometimes it is of serious import, while at others it is of relatively no consequence.

We recently directed attention to a test (New York Medical Journal) which for many years has been of value in deciding the significance of albuminuria. It is the administration of alkalies, preferably sodium citrate in one drachm doses three times a day, to determine if the albumin disappears when the urine is alkaline in reaction.

The albumin clears up in a surprisingly large percentage of cases and naturally gives

us three main groups of albuminuria which assists us in the treatment and prognosis:

First, those which have no albumin and casts when the urine is kept alkaline in reaction.

Second, those in whom there is a reduction in the amount of albumin and casts.

Third, those where there is no appreciable change in the amount of albumin and casts following the administration of alkalies.

In the course of routine urologic work, the largest number of patients come in the first classification and the smallest in the third. We are speaking only of the patients whose urine is free from pus and blood. For practical purposes, this classification offers many advantages both in the diagnosis and in the treatment, as it enables one quickly to ascertain the probable cause of the albuminuria and to institute appropriate treatment without unnecessary delay in those due to hyperacidity and the associated phenomena.

Obviously, it is necessary to administer sufficient alkali to make the urine neutral or alkaline in reaction. This at times can not be obtained without increasing the amount of sodium citrate to more than three drachms a day, which is the usual dose to start with. It is generally given in lemonade between meals. There is an advantage in administering also juices of fruit, such as oranges, lemons and grape fruit. The fruit acid is eliminated as an alkaline carbonate. The bowels are kept reasonably active and the patient is permitted to eat nearly everything that agrees with him, but he is advised to eat meat in only a moderate amount. The urine is tested by the patient every other day to determine if an increase of the alkali is indicated. In all instances where there is no edema the patient is urged to drink freely of water to dilute the toxic products eliminated in the urine and thus lessen the toxic results.

If under this treatment the albumin persists for more than one or two weeks, we conclude that the condition does not belong in the classification first mentioned. If

there is a definite decrease, however, in the amount of albumin and casts, but some still persist, we continue the treatment without other measures for a week or two more, restricting the diet, however, in both the variety and the amount of food taken; more rest is advised and greater care with the bowels.

Finally in about three or four weeks, if the albumin and casts persists, we conclude that the type belongs in group two and, regardless of subsequent treatment, we think alkali should be continued along with the other measures employed for the manifest reason that some improvement followed its administration. Where the above plan is followed by no decrease in the albumin and casts, we conclude that no benefit can be obtained from the alkalis.

The advantage of the plan above outlined is that the patient does not have to submit to tonsillectomy, X-Ray examinations, extraction of teeth and elaborate investigations to be relieved of the conditions which come in group one.

Those in group two are found as stated to need alkalies with the additional measures.

Those in group three are those which tax our diagnostic ability, sometimes excessively, to find focal infections, to correct the diet and gastro-intestinal disturbances, to detect disturbances in the gland functions, to recognize luetic nephritis, etc.

It would take us beyond the scope of an editorial to discuss the etiology of nephritis or to elaborate upon the other useful and necessary classifications and measures employed. The object we have in mind is merely to direct attention to this plan of classifying patients who have albuminuria.

We feel confident that the men who have not used this classification will be agreeably surprised by its assistance.

—Edgar G. Ballenger, M.D., F.A.C.S.,  
Atlanta, Ga.

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### FLOYD WILLCOX McRAE, SR.

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The news of the death of Dr. Floyd W. McRae, Sr., at his home in Atlanta, August

13th, came as a great shock to the whole State. In his passing the Medical Association of Georgia lost one of its most useful and distinguished members.

His career was one which the young men of today might well envy and strive to emulate. To succeed in life is an object which is urged upon every youth from the day he first enters school until he has received his last diploma. Many fail, a large number realize their ambitions in part, but it is given to few to have emblazoned upon their record the word "Success" in such large letters as crowned the work of Dr. Floyd McRae.

The success of some men is measured by the amount of money they make; of others by the reputation and influence they achieve; and of still others by the good they do their fellowmen. On all these counts Dr. McRae attained notable success. While never known for charging exorbitant fees, his large practice among a splendid clientele brought large returns. At the same time his Scotch instinct imbued him with the spirit of thrift, although he was a generous giver to every worthy cause.

For more than a quarter of a century no surgeon in this section enjoyed a higher reputation for skill, progressiveness and successful results. While he never cultivated ability in medical writing, and was not considered a great teacher in the lecture-room, he was a great teacher in furnishing an unsurpassed example to students and to physicians in skillful operating and in the maintenance of superb aseptic technic. It might be said that no man in Georgia did more to impress upon the profession the value of the "aseptic conscience."

No tribute to Dr. McRae could be complete without referring to his work in appendicitis. The writer does not know when he performed his first operation for this disease, but it is generally considered that the first appendectomy in Georgia was performed in 1893 by the late Dr. J. B. S. Holmes, when he operated upon W. Y. Atkinson, then Governor of the State. It is interesting that the first appendectomy of all was done by Fitz of Boston, in 1885,

which is the year that Dr. McRae graduated from the Atlanta Medical College.

At any rate McRae became a recognized authority on appendicitis early in his professional life. At the same time many other members of the profession were performing the operation successfully, and McRae was developing himself in other lines of abdominal surgery. His work was limited to surgery, and to gastro-intestinal and pelvic surgery particularly. It was the good fortune of Dr. Stewart Roberts and the writer, as medical students, in the late nineties, to be with Dr. McRae in many of his first operations for appendicitis. "To be" is said advisedly. No medical student could assist Dr. McRae in this important work. Our function was to clean the instruments after an operation. Hospitals were rare, and trained nurses were rarer in those days. Dr. Sage Hardin was the able assistant in these operations, as he continued to be for several years later. No doubt Dr. McRae's name as an expert in appendicitis was due largely to the fact that his first forty-nine cases recovered; his fiftieth case was the first to die.

For many years no member of our Association wielded greater power among the physicians of the State than Dr. McRae. His power extended beyond our confines to the most important National organizations. The American Medical Association and the American College of Surgeons looked upon him as one of our most representative men and as a spokesman of influence. He was one of the founders of organized medicine in Atlanta, president of the Medical Association of Georgia, Secretary of the Section on Surgery, American Medical Association, and delivered the Oration on Surgery before the latter body. For many years he taught anatomy and surgery in the medical schools of Atlanta.

No man who did so much to relieve human suffering and prolong life could fail to count his friends by the hundreds, both among the profession and the laity. His charming personality always won. All medical men do their share of charity work, and none did more than Floyd McRae. He

never neglected a patient, whether rich or poor, and gave each one conscientious, painstaking service. His mind was ever on his work. Concentrated effort was one of the keynotes of his success. He was a loyal supporter of the church, and led a Christian life. His main thought beyond his life's work was for his wife and three sons, for whom he made a wonderful husband and father.

Dr. McRae's wish was not only to see the medicine of his day accomplish great things, but to see it always advance. No one could accuse him of getting in a rut. He was among the first to step forward. His eyes were turned toward the future. Up to the time of his death his spirit was young. He was always planning for new and better things. May such a spirit inspire many of his successors. We all will miss his sound advice, his stimulating presence, his cheery smile.

—F. K. BOLAND.

#### HANSELL CRENSHAW.

No soldier who fell on the battle-field in France was more of a hero than Dr. Hansell Crenshaw, who died at his home in Atlanta, August 20th. At his age, and with his great physical disability, he would have been one of the last physicians to be criticised for not entering the service for his country in the Great War. But what he conceived to be his duty was paramount to him, and he would not be denied the privilege and honor of answering the call to arms. Thrombophlebitis resulting from typhoid fever contracted in boyhood caused the local examining board to reject him when he first applied for a commission. But when, at his own expense, he went to headquarters at Washington and demanded that he be accepted, it was the same thing as a sick soldier begging his captain to allow him to go into the thick of the fight.

And so he became a captain in the medical corps, and rendered his country splendid service as a psychiatrist. Although he did no hard work in the front-line trenches, and was not forced to endure the hardships of



war as the term usually is understood, those of us who were with him in France know that at times his work was such as to greatly imperil the life of a man who for most of his years had been compelled to wear elastic stockings, and who in civilian life could never walk more than a few squares without having to rest. Who does not remember that long hike through Southampton to the rest-camp, and much worse than that, the terrible ascent of the interminable hill at Le Havre? And who does not recall that Crenshaw always remained with the crowd and carried his part of the luggage?

Immediately upon his return from abroad he began to suffer those torturing illnesses which resulted from the old trouble in his veins, and which finally caused his death.

And so we say that Hansell Crenshaw was a hero, and should be remembered as such. He did not have to go into the war, he did not have to go to France, but his high sense of patriotism would not let him do otherwise, and his patriotism cost him his life, even as the patriotism of Nathan Hale cost him his life. But who that knew Crenshaw was surprised at his heroic conduct? He was made of the stuff that heroes are made of: courage, self-sacrifice, love of home and country, and with it all the gentleness of a woman.

Dr. Crenshaw was a man of marked versatility. His talents carried him into several different fields of endeavor, in any one of which he could have achieved pronounced success. His first love was music. Raised in a musical atmosphere, he early showed talent in performing on the violin and other instruments. Later he developed into a composer and left behind many pieces of unquestioned merit which we trust his family will see fit to have published. But his musical ability did not stop at composition and performance; he possessed a knowledge of musical art probably second to none in this section of the country. Few equalled him as a critic of music in all its departments.

Later Dr. Crenshaw displayed literary qualities of unusual worth, both in handling medical subjects and in the realm of fic-

tion. Though handicapped by feeble eyesight he was an omniverous reader and delighted especially in his Herbert Spencer. Few physicians in Georgia have ever equalled Crenshaw in clearness of style and purity of diction. As a teacher of chemistry and medical subjects in the pharmaceutical, medical, and dental colleges of Atlanta, he acquired an enviable reputation. During the latter years of his life he resolved to sacrifice all other desires toward equipping himself in the broad and growing field of neuro-psychiatry, a decision which was crowned with an ever-increasing success. His patient and analytical mind qualified him for such a specialty, and his untimely death robs the profession of Georgia of a place which will be hard to fill.

Hansell Crenshaw was a man of strong likes and dislikes, but no one ever heard him speak ill of another, unless the other was guilty of dishonesty. The embodiment of honesty himself, he would not condone crookedness in any form, and his vehemance in denunciation of it knew no bounds. Yet he was the soul of kindness and courtesy and would give his last dollar to one who needed it. No home ever had a more devoted husband and father, and his talented wife lent him valuable assistance in his every effort.

One of the traits for which we loved him best was his modesty. He would blush to read this attempt to praise his noble character, and would beg us to desist. But the half has not been told. Everyone who had the pleasure of intimate acquaintanceship with Hansell Crenshaw will subscribe readily to all that has been written and could add much more. None of us could have a truer friend. May he rest in the peace he so richly deserves.

—F. K. BOLAND.

#### MEETING OF EIGHTH DISTRICT ASSOCIATION.

The annual meeting of the Eight District Medical Association was held with the Putnam County Medical Society at Eatonton August the tenth, about fifty members at-

tending. The State Association was ably and happily represented by Dr. Allen H. Bunce, Sec. and Dr. M. C. Pruitt as proxy for President Thrash.

An interesting address was made by Dr. Pruitt in which he urged more thorough organization and cooperation among members of the organization. An interesting and instructive paper was read by Dr. Bunce on the Newer Methods of Diagnosis with report of cases and illustrative charts, with particular attention to the Epinephrin Test and Basal Metabolism in Thyroid conditions. Other papers were read as follows:

Early Diagnosis Of Cancer—Dr. H. M. Fullilove, Athens.

Typhoid Fever—Dr. W. D. Gholston, Danielsville.

The Dead-Beat—Dr. J. R. Robins, Siloam.

Some Aspects Of Endocrine Therapy—Dr. A. B. Patton, Athens.

Kidney Study With Report Of Cases, Illustrated—Dr. J. P. Proctor, Athens.

Our Milk Problem—Dr. Linton Gerdine, Athens.

Pyelitis In Children—Dr. B. C. Teasley, Hartwell.

In this historic city amid the scenes which knew such people as the Evans, Gouldings, Johnstons, Lamars, Joel Candler Harris and other notable members of the aristocracy of the Old South, there reigns a spirit of hospitality which for elegance and graciousness is not surpassed in any community in the South and that means in the world.

At the noon hour the visitors were entertained by the lady members of the Putnam County Medical Society and the Eatonton Chamber of Commerce at a delightful Georgia 'Cuc during which a splendid musical programme was given by the Eatonton Brass Band and at the close of the session by a most sumptuous melon cutting. Whoever has not visited Eatonton may rest assured that one more treat awaits them.

The 1922 session will be held at Hartwell.  
D. M. Carter, Sec.

## A FIFTH DISTRICT SOCIETY.

The Fifth District is one of the few unorganized districts in the State. Yet, the Fifth District has within its bounds the largest city, the best medical school, the greatest population, the most doctors, the greatest number of hospital beds, and the best-known medical center of any district within the southeastern part of the United States. With such assets, the Fifth District, it seems, is neglecting a golden opportunity of increasing scientific attainment and medical prestige.

It is true that there are many societies and associations which take some of our time and work; but there is room and need here was an **ideal** society, whose meetings will take the form of clinical demonstrations, discussions, and lectures, to which meetings, we could, with much pleasure and benefit, invite leaders in the medical sciences from other medical centers.

Those who are interested in the formation of a Fifth District Society are urged to communicate with the writer. The time and place of a meeting to consider the advisability and plans of organization will be announced at an early date.

M. F. Morris, M.D.,  
Candler Building,  
Atlanta, Ga.

COPY OF RESOLUTIONS PASSED BY THE CLASS OF PHYSICIANS CONSITUTING THE INSTITUTE-CLINIC OF EMORY UNIVERSITY JULY 11 TO 16, 1921.

The Venereal Institute-Clinic held by Emory University was a decided success from every viewpoint. It was attended by 145 physicians who registered, representing 71 counties, every section of the state being represented.

This Institute was a new venture, and both Emory University and the men who attended are delighted with the results.

The day of adjournment the class passed the following resolutions:

WHEREAS, Emory University, the U. S. Public Health Service and the State Board of Health have very generously given to the physicians of the State

a most valuable series of lectures and clinics on venereal disease control covering an entire week, which a large number of the physicians from all parts of the state have attended with great profit to themselves and to the people of the state, and

WHEREAS, This condition is of such vital interest to every one and demands at our hands the very best endeavor and cooperation of all concerned,

RESOLVED, FIRST, That through the meeting just held we have received a large insight into the real conditions and the possibility of progress in the control of venereal disease in the state.

RESOLVED, SECOND, That we pledge to the U. S. Public Health Service and the State Board of Health our very best endeavor in carrying on this work, both by our personal work in the several fields of our labors and by our influence with our Representatives for an increase in appropriations to the State Board of Health, that said Board may more effectually carry on their campaign.

RESOLVED, THIRD, That we extend to Emory University, the U. S. Public Health Service, the State Board of Health, the Southern Dental College, the Fulton County Medical Society, the Hospitals of Atlanta, Ga., and all others who have contributed to the success of these lectures and clinics our sincere thanks, and assure each that an annual return of this splendid meeting would be appreciated by the physicians of the state.

One of the most enjoyable meetings was that of the Fulton County Medical Society; almost every seat was taken in the assembly room of the Chamber of Commerce on Thursday night, July 14th, and all who attended we are sure were well paid. The program as arranged by the president, Dr. Boland, was enjoyed by each physician present.

Dr. Joe B. Bowdoin, Deputy Commissioner of Health for the State, gave the moving picture, "The Modern Diagnosis and Treatment of Syphilis," at the auditorium of the Atlanta-Southern Dental College on the evening of the 13th. These were the only evenings for which programs had been arranged.

A questionnaire has been mailed to those who attended the Institute, among the subjects covered being whether the Institute should be repeated next year and whether it should be continued longer than a week. It appears from those returned up to this writing that it is wanted and that ten days or two weeks are desired.

## GREAT INTEREST SHOWN IN SOUTHERN MEDICAL ASSOCIATION SPECIAL TRAIN FROM ATLANTA.

Numerous inquiries are being received by Dr. Allen H. Bunce Sec'y., Medical Association of Georgia, and Mr. Pat B. Hampton, D. P. A., Seaboard Air Line Railway, regarding the Special Train which will be operated by the Medical Association of Georgia, to Hot Springs, Ark., account the meeting there Nov. 14th to 17th, as announced in previous issue of this Journal. This train, which will consist of All Steel Pullman Drawing Room Sleeping cars, Compartment cars and Dining Car, will leave Atlanta via the Seaboard Air Line Railway at 5:30 P. M., Saturday, Nov. 12th, going via Birmingham, Frisco R. R. to Memphis, thence Missouri Pacific to Hot Springs, arriving there Sunday afternoon, Nov. 13th.

### Special Reduced Railroad Rates.

The railroads have named rate of one and one half fare for the round trip, for our meeting, tickets to be sold Nov. 10th to 16th, inclusive, with return limit of Nov. 21st. In order to secure this rate, you must have identification certificate to present to ticket agent. You can secure these certificates from your local secretary, or from the Southern Medical Association Office at Birmingham. Be sure to apply for your certificate early, so as to avoid confusion at the last minute.

As previously stated, all the physicians of the Southeastern States, together with their families, who anticipate attending this meeting, are cordially invited by the Medical Association of Georgia to join them on their Special Train. Requests for information or Pullman Reservations should be addressed to Mr. Pat B. Hampton, District Passenger Agent, S. A. L. Ry., Atlanta, Ga., or Dr. Allen H. Bunce, Sec'y., Medical Association of Georgia Healy Bldg., Atlanta, Ga.

### PROPAGANDA FOR REFORM.

**Aspirin or Acetylsalicylic Acid.** — For many years the Council of Pharmacy and



Chemistry and the Journal of the American Medical Association have been urging physicians to avoid using proprietary names in prescribing drugs obtainable under a non-proprietary name. Two substances have been especially referred to in this connection, hexamethylenamine and acetylsalicylic acid. Many years ago, hexamethylenamine was found to be an effective therapeutic agent, especially as a urinary antiseptic. Since it was a well known chemical it could not be patented. A commercial firm, however, seized the opportunity and coined the name "urotropin" and advertised it. As a result the proprietary name became so fixed in the minds of physicians that some still use it in their prescriptions instead of hexamethylenamine. Acetylsalicylic acid was patented and the trade name "Aspirin" coined for it by the predecessors of the Bayer Company. During the patent monopoly both physicians and the public became familiar with the term

tempted to impress on the lay mind that there is no satisfactory Aspirin except Aspirin-Bayer. Recently a suit has been decided in which the Bayer Company sought to restrain the United Drug Company from selling acetylsalicylic acid under the name Aspirin. The court holds that, since the public knows the drug as Aspirin only, the pharmacist may sell any brand of acetylsalicylic acid to the public when Aspirin is called for. On the other hand, manufacturers, pharmacists and physicians know the term acetylsalicylic acid, and know that the term Aspirin was coined by the Bayer concern, and hence, when a physician writes for Aspirin in his prescription only the Bayer product may be supplied. Physicians should avoid the term "Aspirin" and instead prescribe "acetylsalicylic acid."—(Jour. A. M. A., May 14, 1921, p. 1356.)

Those who are not familiar with the methods of the Council in the examination of new medicaments or who may even have been inclined to look upon the acceptance or rejection of a medicament by the Council as a somewhat perfunctory procedure, should read the report of "Chloryptus"—a chlorinated eucalyptus oil. Its proprietor believed it to be a most efficient wound antiseptic. He presented to the Council many lengthy reports of laboratory tests and of clinical trial. The Council found the evidence inconclusive and refused recognition to the product. The discoverer of Chloryptus apparently has accepted the conclusion of the Council—at all events it is not being pushed—and thus many a physician is spared the temptation of experimenting with a new drug which in the end will but add to his long list of medicaments which have been tried and found wanting.

Aspirin. When the patent expired, physicians continued to prescribe Aspirin, even though the drug was available under its proper name, acetylsalicylic acid. Having acquired the rights to Aspirin, the Sterling Products Company, under the name of "The Bayer Co." has during recent years at-

#### NEW AND NON-OFFICIAL REMEDIES.

**Silver Arsphenamine.—Sodium Silver Arsphenamine.**—The sodium salt of silver-diamino-dihydroxy-arseno-benzene, containing approximately 20 per cent. of arsenic and approximately 15 per cent. of silver. The action and uses of silver arsphenamine are essentially those of arsphenamine (see New and Non-official Remedies, 1921, p. 41.) Its claimed advantage over other arsphenamine preparations is said to be due to the silver which improves the chemo-therapeutic index. The presence of organic diseases of the heart, aneurism, aortitis, as well as other parenchymatous diseased conditions of the glandular structures, silver arsphenamine should be used with great caution and in small doses. The dose of silver arsphenamine is from 0.1 to 0.3 gm. for adults. To administer silver arsphenamine the product is dissolved in sterile distilled water without application of heat and without shaking and then diluted with 0.4 per cent. sodium chlorid solution to make 20 c. c. per 0.1 gm. of silver arsphenamine. —(Jour. A. M. A., May 7, 1921, p. 1312.)

**Mercurochrome-220-Soluble.** — The disodium salt of dibromo oxymercury fluorescein, containing 23 to 24 per cent. of mercury, Mercurochrome-220-Soluble is a strong and rapidly acting germicide. It is active in urine 1:1,000 solution, killing bacillus coli and staphylococcus aureus in this medium in one minute. It penetrates the tissues readily. The drug is tolerated in strength of 1 per cent. by the bladder, renal pelvis and urethra. A 2.5 per cent. solution applied to the anterior urethra causes only temporary discomfort. The toxicity, when tested by intravenous injection into rabbits, is rather high. Mercurochrome-220-Soluble has been used in cystitis, urethritis and in chaneroidal ulcerations, also in affections of the eye and the ear. Hynson, Westcott & Dunning, Baltimore, Maryland. (Jour. A. M. A., May 21, 1921, p. 1403.)

During April the following articles have been accepted by the Council of Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

Armour & Co.: Suprarenalin Solution—Armour.

The Diarsenol Co.: Silver Diarsenol; Silver Diarsenol 0.05 Gm. Ampules; Silver Diarsenol 0.1 Gm. Ampules; Silver Diarsenol 0.15 Gm. Ampules; Silver Diarsenol 0.2 Gm. Ampules; Silver Diarsenol 0.25 Gm. Ampules.

Hynson, Westcott & Dunning: Mercurochrome-220-Soluble.

The following articles were accepted during June:

Lederle Antitoxin Laboratories: Pollen Antigen-Lederle (Ragweed); Pollen Antigen-Lederle (Timothy).

During July the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

The Abbott Laboratories: Argyn.

Hoffmann LaRoche Chemical Works: Papaverine Sulphate Tablets—Roche.

Nonproprietary Articles: Casein.

## BOOK REVIEWS.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1920. Cloth. Price, postpaid, \$1.00. Pp. 72. Chicago: American Medical Association 1921. 1921.

While New and Nonofficial Remedies consists in part of descriptions of those proprietary medicines which the Council deemed worthy of consideration by the medical profession, the Annual Reports of the Council on Pharmacy and Chemistry describe the preparations which the Council finds unworthy of recognition. In addition, these annual reports contain other announcements of the Council.

The present volume contains a number of interesting reports. Thus we find a statement which makes it clear that many of the large pharmaceutical houses are definitely opposed to the work of the Council and will remain antagonistic until a very large proportion of the medical profession will give the Council their active support. The volume also contains a report on some digitalis preparations which the Council examined and declared to be pharmacopial digitalis products and therefore do not require the control of the Council.

Of the reports on proprietary medicines found unacceptable for New and Nonofficial Remedies there are reports on the following which, because of the publicity given the products by their exploiters, will be of special interest to physicians: Platt's Chlorides, Syrup Leptinol (formerly Syrup Balsamea), Sukro-Serum, Spirocide, Libradol, Supsalvs.

Of considerable interest are reports on a number of products which were admitted to New and Nonofficial Remedies on the basis of evidence which at the time seemed to indicate the products to have therapeutic merit, but which did not stand the test of time and which therefore have been omitted from the 1921 edition of New and Nonofficial Remedies. These reports give evidence that great care is taken to keep New and Nonofficial Remedies up to date.



## ABSTRACTS FROM MEDICAL LITERATURE.

By M. Ford Morris, M.D.

**Removal of Suprarenal Gland in Epilepsy.**—Steinthal (*Zent. fur Chir.*, June 25, 1921) removed the suprarenal gland in seven cases of genuine epilepsy, without obtaining relief from the epileptic attacks. He concludes, from the results in these cases, that the removal of the suprarenals has no therapeutic value in epilepsy. Sandor, in the same periodical, reports favorable results in four cases of epilepsy, following the removal of one suprarenal gland. Only three months had elapsed since the time of operation in the most interesting of the four cases, but the results were remarkably good. Sandor thinks that this method is worthy of further trial.

**New Procedure for the Prevention of Spinal Puncture Headache.**—Baar (*Medical record*, 1920, xeviii, 598) reports that, by giving intravenously 500 to 750 c. c. of 0.5 per cent sodium chloride solution immediately after the spinal puncture, the disagreeable headaches which usually follow this puncture may be avoided.

**Treatment of Syphilis of the Nervous System.**—Cummer (*Ohio State Medical Journal*, 1920, xvi, 663) emphasizes that treatment of the nervous manifestations of syphilis, at best, is uncertain; that in the most favorable cases, it must be intensive and prolonged; and that in some cases, treatment is practically valueless. It is, therefore, necessary to recognize promptly syphilitic invasion of the nervous system, and, to treat vigorously such early symptoms, in order to prevent irreparable damage to the nervous structures. More important and efficacious, however, is the prophylactic treatment. Prolonged treatment and observation of all syphilitics, particularly in the primary and secondary stages, until all clinical and laboratory examinations, repeated a number of times, are negative, is the prophylactic,—the best, treatment of syphilis of the nervous system.

**Treatment of Asthma by Autogenous**

**Streptococcal Vaccines.**—Rogers (*British Medical Journal*, July 16, 1921) reports that, in 15 per cent of cases, this treatment failed to give material relief of a lasting nature; in 32.5 per cent, it gave great relief, but was either not permanent or incomplete; and, in 52.5 per cent, the patients remained well, when last heard from,—one-half to four years after treatment.

**Protein Therapy in Pneumonia.**—Renaud (*Bull. Soc. Med. des Hop.*, June 17, 1921) uses a simultaneous injection of epinephrin and anti-pneumococcus serum, in the treatment of pneumonia. This combined treatment induces the crisis, which terminates the disease. Apparently, during the last two years, Renaud, who has treated the astounding number of 630 cases of pneumonia, has had some excellent results from this method of treatment.

**Blood Chemistry in Normal and Abnormal Pregnancy.**—Caldwell and Lyle (*Am. Jour. Obs. and Gyn.*, July, 1921) found, practically normal chemical conditions in the blood of normal pregnant women. The blood pictures in eclampsia and toxæmia of pregnancy are interpreted most readily in terms of functional inefficiency of the kidneys. Marked renal impairment, indicated by the finding of much non-protein nitrogen retention (of which, the estimation of the urea nitrogen, uric acid, and creatinine of the blood is the method usually used in preference to the single estimation of the total non-protein nitrogen) makes necessary, as in ordinary nephritis, the giving of a grave prognosis. In pregnancy, as in other cases of nephritis, the finding also of a high creatinine content is a serious omen. When the nitrogenous constituents do not return to normal soon after delivery, a doubtful prognosis for future pregnancies is justified. A rapid return of the chemical blood picture, after delivery, justifies a favorable prognosis for future pregnancies.

**The Influence of Chaulmoogra Oil on the Tubercle Bacillus.**—Kolmer, Davis, and Jager (*Journal of Infectious Diseases*, 1921, xxviii, 265) have been using the sodium salts of the total fatty acids of chaulmoogra oil in fluid culture media, and they have



found that dilutions as high as 1 to 100,000 are bactericidal and 1 to 1,000,000 may be antiseptic for the tubercle bacillus. This may prove to be of some real value in the treatment of tuberculosis.

### FLORIDA'S NEW PRACTICE ACT.

After several years of effort a new medical practice law has finally been secured in Florida, clearing away the obsolete multiple board arrangement which for many years has caused much confusion in medical licensure in that state. The new law establishes a composite board which has full authority to refuse or revoke licenses, to refuse recognition to low grade medical colleges and to protect the public against incompetent physicians. The personnel of those appointed on this board promises assurance that the provisions of the new law will be enforced. The people of Florida are to be congratulated on the successful passage of this law, and it is hoped that they will appreciate its importance and support its vigorous enforcement. The only flaw in the act is that osteopaths and chiropractors are exempted from the requirements of the medical practice act since, for the time being, their practice is regulated by separate boards. In time, however, when public opinion has been awakened to the injustice and unwisdom of providing an inferior standard of qualifications for any group of healers, these special boards may be abolished, as they were this year in New Jersey. Public opinion will not long uphold an evident injustice, once attention has been clearly called to it.—*Journal A. M. A.*, July 30, 1921.

### IODIN IN THE CEREBROSPINAL FLUID.

By the use of Kendall's method, Earl D. Osborne, Rochester, Minn. (*Journal A. M. A.*, May 21, 1921) has been able to show that there is iodine in the normal cerebrospinal fluid, and that iodine is found in the fluid in increased amounts following its administration by mouth, by rectum and intravenously.

The iodine content of the cerebrospinal fluid following administration of iodine by mouth or by rectum is small compared with that following the administration intravenously. The iodine content of the cerebrospinal fluid following the administration of iodine intravenously plots a definite curve, depending on the amount administered. Certain observations made in the course of this study suggest the possibility that (a) neurosyphilitic tissue takes up more iodine than normal nervous tissue, and (b) the presence of a meningitis increases the permeability of the meninges to iodine compounds in the blood.

Dr. J. R. Childs, formerly associated with Dr. R. B. Ridley, Jr., announces the removal of his offices to Suite 717 Hurt Building. Practice limited as heretofore to eye, ear, nose and throat. Phone Ivy 641.

### DEATHS.

Hansell Crenshaw, Atlanta, Georgia. Born 1877, died August 20th, 1921.

Floyd Willecox McRae, Sr., Atlanta, Georgia, born 1861, died August 13th, 1921.

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Davis-Fischer Sanatorium.  
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The Davis-Fischer Sanatorium announces the opening of their annex and nurses home on August 10th. There was a reception to the public from four until ten P. M. The Medical, Nursing and Dental professions were especially invited to inspect the new building. Their capacity will now be more than doubled by the annex, giving then 110 new beds, besides 65 beds for the nurses on the first and second floors of the new building.

The obstetrical department is now finished and will occupy the second floor of the old building, where a specially built delivery room has been provided, with a baby ward and all of the equipment that is necessary to put this department in working order. Their new operating rooms are being finished, giving them four operating

rooms in all. The new kitchen is being completed, and the nurses will be served on the cafeteria plan.

The Laboratories and x-ray department are especially provided for in the basement of the old building. It is their purpose to have the laboratories sufficiently large that doctors who desire it may in a short time take a special course in the laboratory.

A complete staff is being organized where the leading men of the profession will be appointed with their associates and assistants to have charge of the various departments.

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Volume X

ATLANTA, GA., OCTOBER, 1921

No. 17

### ORIGINAL ARTICLES

#### ROBERT BATTEY (1828-1895).\*

Howard A. Kelly, Baltimore, Md.

The occasion of our gathering, the unveiling of this monument, is a notable one in the history of Georgia, of the South, and of the Nation. We meet to honor the name of Robert Battey, a great surgeon, an illustrious citizen of Rome and a benefactor of our race.

An ephemeral voice is raised today for a few moments to proclaim the distinction achieved by this honored colleague, who left the field of his labors a generation ago, and the enduring monument of granite before us on the main street beside the library, is erected to uphold to all citizens and visitors of Rome the example of an untarnished life, spent in the service of womankind.

The eminent English biographer, Sidney Lee, declares that we write biographies to gratify a "commemorative instinct", but I take it that we seek to perpetuate the memory of such a life as Robert Battey's, not alone that we may do him honor, but that all men may pause, take heed, and be enriched spiritually as they contemplate his example.

The world about us will ask: "Who was Battey?", "What did he do?", "What does it signify to posterity?"

Robert Battey, son of Cephas and Mary Magruder, was born in Augusta, Georgia, November 26th, 1828. He had his preliminary education in Richmond, Va. and at the Phillips Academy, Andover, Mass. He attended the Booth School of Analytical

Chemistry in Philadelphia and then graduated at the Philadelphia College of Pharmacy in March, 1856, an admirable preliminary in his day for his doctorate.

Choosing medicine as his career, he began to study in 1849 under his brother, George M. Battey at Rome, Ga. His medical degree was had under the preceptorship of the noted obstetrician, Ellwood Wilson, in Philadelphia, where he attended the prescribed two years of courses at the Jefferson Medical College, receiving his degree of M. D. March 7th, 1857.

Later from this Alma Mater (April 1, 1890) he received the degree of LL. D. in recognition of his distinguished humanitarian services.

Following the example of many others, with premonitions of greatness, his ambition then took him abroad (1859-60), particularly to Paris, to perfect his home training under the world's greatest masters, Nelaton, Velpeau, Civiale, Larrey and Huguier. From 1872-1875 he was professor of obstetrics in the Atlanta Medical College, and from 1873-76, editor of the Atlanta Medical and Surgical Journal.

Four years in the early sixties were spent in the Humane Service of the Confederate Army during the great war in which so many men, North and South, found that fruitful school of surgery which gave them the self-reliance, boldness, skill and experience which served so to foster the subsequent rapid development of surgery in these United States. He served in the 19th Regiment of the Georgia Volunteers, and was surgeon in Hampton's Brigade, in Archer's Brigade at the Fair Ground Hospital in Atlanta, and at Polk's Hospital.

He was a zealous trustee of Emory College, now Emory University, and the sur-

\* Read before the Medical Association of Georgia, Rome, Ga., May 4, 5, and 6, 1921.



geon to the Gynecological Infirmary at Rome. He was head of the Martha Battey Hospital, an incorporated institution named in honor of his wife, Miss Martha B. Smith, whom he married in 1849, an ideal helpmate whose devoted and faithful services made possible his great work; Mrs. Battey still survives him, vigorous in mind and unbroken in spirit.

May I not fittingly here, while rendering a tribute to this noble woman, type of our finest American womanhood, pause to honor all the blessed Marthas, to whose faithful labors we owe much of that which is enduring in our civilization; especially would I here and now remember that youngest Martha, your distinguished citizen up the Possum Trot way, known, loved and admired in all our broad land as the South's noblest living exemplar of woman's best services to humanity. Long may our blessed Marthas live, and their labors be crowned with success.

A fount of inspiration and a source of Battey's greatness must not be overlooked. He sprang from the loins of great medical progenitors as his spiritual fathers. When he came among us, medicine and surgery had at last crossed the arid centuries of the past, and the world, teeming with new thought and fresh endeavor, was consumed with an unquenchable thirst for the better things immediately to be realized.

At or about the time of his student days in Philadelphia at Jefferson College, Robley Dunglison was the potent, fluent, lucid, exponent of a wisdom and culture he brought from the old world. Joseph Pancoast, surgeon without a peer, was a tower of strength. George B. Wood was professor in the University; Hodge, Stille and Agnew were there, too. Young Joseph Leidy had begun his phenomenal career in science in 1853. John Kearsley Mitchell, of wide culture, filled the chair of the practice of medicine. Charles D. Meigs, of Jefferson, artist, teacher and writer, inspired the students with a realization of the distinction and dignity attainable in the profession. Bache, student of Rush, filled the chair of chemistry from 1841-64. Muetter, student

of Dupuytren, Roux, Lisfranc, Liston and Strohmeier, and a man of impressive personality, deeply interested in plastic surgery, labored shoulder to shoulder with Pancoast, and built up his great museum.

To sit under these men or to walk the same city streets with them, was like being admitted to the councils of the gods on Olympus, and wherever the divine material was found, it meant the application of the spark and the lighting up of the inextinguishable fires of genius. Here under the tutelage and impress of such masters as germinating seed fell into Battey's bosom, which was destined after the incubation to bear its fruits and through all succeeding decades to solace the woes of womankind.

What did Battey do? Here, before a non-technical audience, I speak but briefly and in general terms. He first boldly entered the domain of abdominal surgery to relieve woman of some of her severest ailments, advocating and performing many times successfully, a life-and-health-saving operation, now done thousands of times yearly the world over. He opened a vast new realm in surgery and thus added the third member to the group and completed the trilogy of American surgeons, which will ever shed its lustre on our art. This triumvirate includes the names of Ephraim McDowell of Kentucky, who in 1809 first performed ovariectomy, and amazed the world by invading the hitherto respected precincts of the abdomen; Marion Sims, who lifted an age-long reproach of surgery by curing vesico-vaginal fistula, and thus became a great and successful plastic surgeon, and who also gave the world his complement, the lately departed Thomas Addis Emmet, even his peer; and lastly, Robert Battey, whose operations upon the pelvic organs for diseases of lesser magnitude, for certain extreme neuroses and for inflammatory ailments, opened up rich mines of surgical resources in the relief of suffering, and in the restoration of health, mines we are still exploiting. (Battey's first patient, operated upon August 27, 1872, I am glad to say I have seen this morning.)

The indirect services these three men ren-

dered to surgery, and the benefits thus conferred upon our race, were greater even than their more obvious and easily chronicled discoveries. They opened up the whole realm of abdominal and plastic surgery and placed our surgical art on a newer, bolder and more successful basis. In very truth they constitute the three refreshing streams, which unite to form modern surgery. In a very real and literal sense, every hospital erected in the world today is indebted to their initiative and is a monument to their genius and skill.

All credit then to these nineteenth century pioneers, all of them (was it by mere chance?) country lads and sons of the fruitful South. Let their names ever remain linked in a blessed fraternity, McDowell-Sims-Batley. Each in his pristine endeavor separated by a generation, but now, as we look back in perspective, the decades in the valleys disappear and we see only three illuminated peaks seemingly united and uplifted to bless the humanitarian efforts of a new century.

### **PYLORIC STENOSIS OF INFANCY FROM THE SURGEON'S VIEWPOINT.\***

C. W. Roberts, M.D.

Atlanta, Georgia.

An outstanding feature of this disease, by which it is characterized, is the presence of a tumor at the pylorus. The symptoms manifested are the result of this phenomenon, and the ultimate outcome of the case depends upon the completeness of the stricture set up at the pylorus by hyperplasia of tissue in this vicinity.

The first recorded case of true hypertrophic pyloric stenosis appears in literature more than a century and a quarter ago, when Bardsley reported a case of "Scirrhus of the Pylorus in an Infant", 1788. After this observation there is a lapse of one hundred years, at the expiration of which time Hirschsprung again drew attention to the

disease in considerable detail,—1888. In the closing years of the 19th and in the first decade of our own century, frequent case reports with illuminating articles appeared from the pens of French, German, English and American physicians, so that in 1905 Sarvonaut was able to collect and report 115 cases.

The clinical course and essential pathology were early observed as appears from a review of the literature. The efforts at treatment were directed along medical lines except in extreme cases. Operative results were very discouraging, the mortality of cases operated upon ranging from 25 to 75 per cent.

Two factors were responsible for these results: first, the use of ineffectual medical measures until the emaciated child carried no resistance to the operating table, a condition which still obtains in spite of sound argument to the contrary; and second, the lack of a simple operative technique, potent in results but quick in application. Various forms of pyloroplasty were then in vogue. Loreta's operation (divulsion of the sphincter) was unpopular because of frequent recurrences. Gastroenterostomy seemed the surgical procedure, and was adopted by most men, but because of inherent difficulty when applied to infants, this operation appeared ill advised for general adoption.

The successful treatment of this malady had its inception in the mind of Fredet who, in 1908, introduced the essential feature of extramucous pyloroplasty. Weber in 1910 used the Fredet technique and Rammstedt, 1912, suggested omitting attempts at repair of the Fredet incision, thus leaving a gaping wound in the tumor wall, which permitted an unfolding of the imprisoned mucous membrane of the pylorus, together with a gradual recovery of the compensatory action of the stomach muscle.

The Fredet-Rammstedt operation was introduced in this country about 1914. It has been pretty generally adopted. By its use the mortality operative results in pyloric stenosis have been reduced to 17 per cent in a group of unselected cases, and in a group of more favorable cases, to 8 per cent

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.



(Downes, W. A., 1920). By a refinement of technic and a slight modification of the Rammstedt procedure, Strauss has reported a series of 107 cases operated upon with only three deaths—a mortality of less than 3 per cent.

It will thus be observed that with respect to early mistakes, the second objection mentioned has been largely overcome, and with the wisdom and judgment which come from understanding, coupled with increasing exact knowledge upon the subject, it is earnestly hoped that the profession will soon appreciate the necessity of accurate early study of all these cases, to the end that operation may be quickly invoked in the group requiring surgical measures. By the application of this fact only will the operative results be found satisfactory regardless of the technic used.

From the early viewpoint which sanctioned treatment of this disease largely by medical measures, there has been a gradual turning, the change having been justified by the introduction of better operative results together with more exact diagnostic methods, by which the surgical cases are differentiated from the medical. The new attitude constitutes a marked advance in the care of these little sufferers, making it incumbent upon physicians everywhere to be constantly on the alert for such cases, lest we permit them under mistaken identity to reach a terminal stage in which neither medical nor surgical measures are effective.

From the foregoing historical data it becomes apparent that congenital pyloric stenosis, while considered rare, is not a new disease. That it is frequently overlooked seems to me very probable. As is true in most so-called rare maladies, when the attention of the profession is repeatedly called to a specific disease, cases in increasing numbers are found. That the occurrence of this disease is rare is denied by many modern investigators, since they have found that there are approximately five cases of congenital stenosis in each thousand babies born. Statistics have largely been compiled from hospitals for the care of sick children alone, or from foundlings. There is a mass

of evidence which seems to indicate a higher percentage of stenosis cases per thousand institutional births, when contrasted with a like number of babies born under home conditions. While this may be true, authors think it fair to assume that with our improved methods of diagnosis it will be found that there are at least five or more cases of congenital stenosis in each thousand births under ordinary conditions. There were approximately 4000 babies born in the city of Atlanta during the year of 1920. Statistically speaking there should have been 20 cases of congenital stenosis diagnosed. In the first half of 1920 there were born in the state of Georgia and reported to the Bureau of Vital Statistics, 21,493 white and approximately 10,000 colored babies. Again applying the general incidence rate, there should have been 107 white and 50 colored cases of stenosis for the half year, or for the whole of 1920 an approximate total of 315 cases in the state at large. I seriously doubt that even a small percentage of these were properly recognized and treated. Many babies suffering from this congenital anomaly die from starvation without a correct diagnosis. In a limited experience in the observation of this class of sufferers, I have not seen one in the case of a negro child, neither does literature at my disposal report such a case. I doubt not that they occur. The majority of the reported cases have been found to be boys, in the proportion of three to one. Two cases have been found in the same family. This must be looked upon as incidental, since the family history probably has no bearing.

The weight of evidence shows that this disease is truly a congenital condition. Many cases have been observed in new born babies, and one author has reported a case in a seven months fetus. There seems to be no doubt but that the pathological change begins in utero and is progressive. After birth, due to the normal activity of the stomach, there is undoubtedly an increase in the rapidity of tumor formation. For a while the stomach musculature is able to force its contents through this growing bar-



rier. Finally compensation is lost, insistent vomiting ensues, the element of spasm is superimposed, and other characteristic symptoms develop. At any rate, congenital pyloric stenosis makes itself manifest at a definite period in the child's life, namely from the 3rd to the 12th week, symptoms usually beginning about 10 days after birth in an otherwise healthy infant.

The striking pathology of this disease consists of a marked increase in the number of circular muscle fibres at the pyloric ring. There is a thickening of the mucosa and some general hyperplasia in the pyloric region, but the tumor mass proper is composed almost entirely of hyperplastic circular muscle tissue.

As to etiology, congenital hypertrophic pyloric stenosis "is the result of a rhythmic contraction of the pyloric ring muscle, beginning in utero and dependent upon some extrinsic or intrinsic abnormal stimulation of the nerve mechanism." (Strauss). Many observers have called attention to this rhythmic contraction of the tumor mass. I myself have observed it when the abdomen was opened and the pylorus exposed to view. As one looks the tumor now shows ischemia is white and glistening, then quickly changes in marked contrast to a reddish mass. This contraction and relaxation seems to be constant, goes on and on as the stream forever. Under the fluoroscope this impulse is transmitted to the upper fluid level of the barium meal and operates constantly to change in a wave-like manner the shadow margin. This phenomenon constitutes a pathognomonic symptom in this disease, according to Strauss.

It will thus be seen that this interesting disease develops as a natural sequence from the constant application of a normal impulse, although the exciting cause is at present unknown. It may be some disturbance of internal secretory function.

The symptoms of congenital pyloric stenosis depend upon stricture of the pylorus due to the tumor formation alone, or to this anomaly plus spasm of the ring muscle, which complication is present in most cases.

The first symptom is vomiting, which is persistent and explosive in character. Then peristaltic waves may be observed, running from left to right in the epigastric region. Green or brown pasty stools with little or no milk elements are noted, along with a rapid loss in weight and general emaciation. The tumor can be palpated in a high percentage of the cases, if the proper method is employed. The habit of palpating the tumor should be cultivated, as by this token the diagnosis is confirmed. One should remember that the pylorus in infancy lies high under cover of the liver and is thus protected. Efforts at crying and distension also defeat the effort at successful palpation. Under relaxation incident to nursing is a good time to feel for the tumor. If no tumor is felt, our method has been faulty. It has been found constant, but its recognition is not required for a diagnosis, nor does it necessarily stamp the case as belonging to the surgical group.

The diagnosis of this condition is arrived at by a careful clinical history and can in most instances be made by this alone. The symptoms are so clean-cut as to lead the careful observer to no other diagnosis. Help may be obtained by the use of the X-ray, but this refinement is not by any means essential. Some physicians use it to the exclusion of all other methods of examination, while others give the X-ray a comparatively unimportant place.

An otherwise healthy infant, first born and breast fed manifesting no evidences of disease in the first days of its life, apparently strong and vigorous, is seized with vomiting. Vomiting is continuous and progresses so that within three or five days the mother notes that nothing is kept in the stomach. The baby appears well and is hungry. There may be an interval of several hours between vomiting spells, when an attack ensues attended by the explosive ejection of a large quantity of stomach contents. Now if the baby be laid upon its back, with the abdomen relaxed and free from distension, peristaltic waves are observed running across the epigastric region

from left to right. Careful and persistent palpation to the right of the median line in the gall bladder region, in the hands of an experienced examiner, shows a small mass which is freely movable. The baby is constipated. When movements are observed they do not contain milk elements. The child of course is losing weight. There is no fever.

This is the picture of congenital pyloric stenosis, so plain that he who runs may read, and is largely confined to infants between the ages of 2 and 12 weeks.

The treatment of congenital pyloric stenosis is yet a live question and will continue to command the interest of the student of medicine. As one studies this subject the inevitable conclusion comes that a certain percentage of the cases are to be treated by medical measures alone, but which case is medical and which case should be operated upon? In true congenital hypertrophic pyloric stenosis surgery will be required to obtain relief in about two thirds of the cases. It seems to me therefore that the pediatrician and the surgeon should be associated in the treatment of such babies, as there is need of expert medical care of all, and surgical interference in a majority. The greatest divergence of opinion arises over the attempt to place a given case in a medical or surgical grouping. This can apparently be done; for example, Alfred Strauss of Chicago depends upon the X-ray and claims to be able to determine in every case whether or not surgery will be required. If 70 to 80 per cent of a bismuth meal passes from the stomach within four hours, the case is medical. Again, Downes of New York, lays little stress upon the X-ray, but depends upon the rapidity of the loss of weight in a given case to determine the question of operative need. This is a suggestion coming from no one less eminent than Dr. Emmett Holt, who has laid stress upon the importance of this observation. If not more than 20 per cent of the body weight is lost within 10 days of the onset of the disease, the case is considered medical.

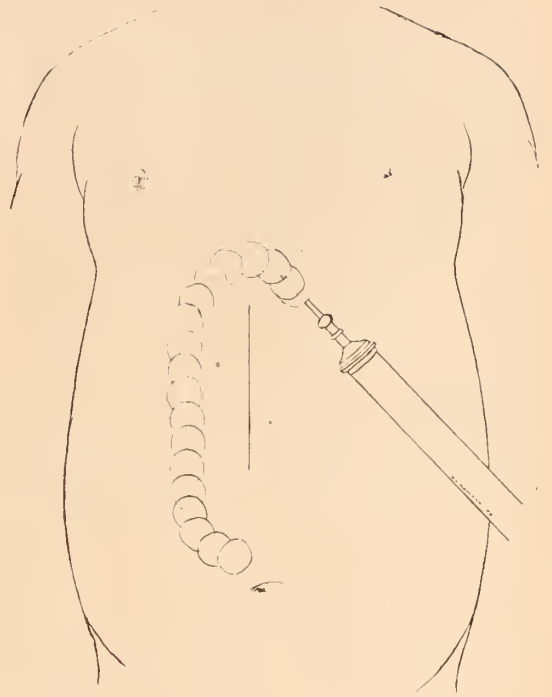
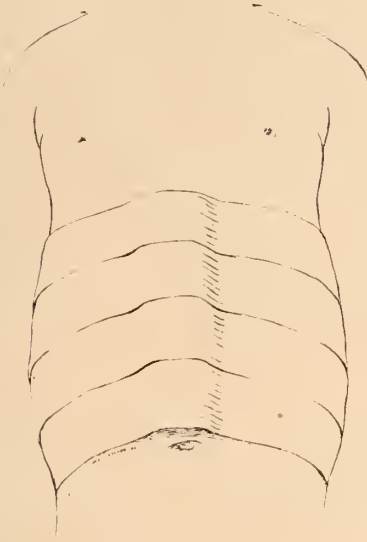
Of these methods the first appears im-

practical since the average observer would find difficulty in determining what percentage of a barium meal had passed in a definite time. The second measure can be followed by any practitioner in the patient's own home. Its value should be generally recognized. It will be apparent that the exercise of this important measure will make it necessary for physicians encountering little patients who are suspected of having this congenital disease, to weigh them accurately in the very outset of their illness.

Surely after having observed a few typical cases of hypertrophic stenosis of the pylorus in infancy, there can be no doubt in the mind of the honest physician as to the need of surgery in the average case. Probably one third of cases will be found, on careful and constant study, to belong to the group in which the pylorus, although embarrassed by tumor growth, permits a sufficient quantity of the stomach contents to pass to furnish fairly adequate nourishment. These get well under medical measures, since compensation of the stomach is maintained. The whole question, therefore, as concerns the need of operation in a given case, will be seen to hinge, not upon the size of the tumor, but upon the completeness of the pyloric obstruction. Whether these unoperated cases go into life with a handicap in the form of a persisting abnormal pylorus, has not as yet been definitely settled. I recall in my own experience three cases operated for digestive symptoms in which a strikingly well developed pyloric ring muscle was observed.

Is this a medical or a surgical condition under the ordinary acceptance of the terms? Certain statistics which I have been able to compile give overwhelming evidence in favor of the surgical care of these cases, to wit: Richard Warren of London reports 54 cases from the service of Gray and Pirie, Great Ormond Street Hospital for Sick Children, under medical treatment, with 80 per cent mortality, and 30 cases from the East London Hospital, in which all died but one. Dunn of Harvard reports 100% mor-

tality in a series treated medically. More favorable series have been reported from time to time under medical management,



but in all these a careful differentiation was not made between spasm and hypertrophic stenosis. It is undoubtedly true that many cases reported to have gotten well under medical measures, were not pyloric stenosis, but pyloric spasm. Alfred Strauss of Chicago reports the operative treatment of 107 cases, with 3 deaths, a mortality of less than 3 per cent. Downes of New York reports the treatment of 175 cases with 30 deaths, a mortality of 17 per cent plus. This series includes operation upon all cases seen from 1914 to 1920, regardless of the condition of the patient when first observed. There was a mortality rate of 8 per cent only in the cases operated upon within four weeks of onset. Many other observers report a like number of encouraging results.

In the final analysis, one is lead to conclude that hypertrophic stenosis is to be looked upon as a surgical disease, and that most cases will die if treated from the medical aspect alone.

The older forms of pyloroplasty as well as gastroenterostomy have been supplanted by the Fredet-Rammstedt extramucous pyloroplasty. Strauss has emphasized the ne-

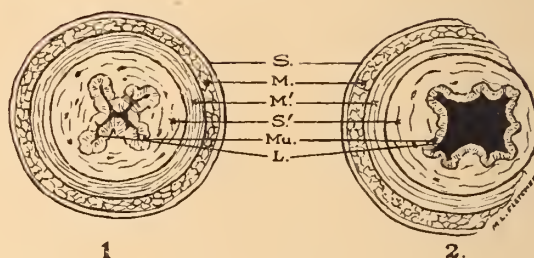
cessity of a modification of this technic after a plan of his own when applied to older cases or to those in which the margin of safety is considered small. He justifies the variation in the Rammstedt technic on the ground that patients with lost compensation and vomiting incessantly will die after the ordinary Rammstedt technic because of an inherent inability of the stomach to unfold the imprisoned pyloric mucosa. Such babies vomit themselves to death. That this is not invariably true, however, has been shown again by Downes in his series of 175 cases in which 30 died, 19 of which did not vomit postoperative. For the average case then, because of its simplicity, the following technic should be adopted, which may be depended upon, barring incidental causes, to cure all cases referred to the surgeon within a reasonable time after onset of the disease and before stomach compensation is lost.

The proposed line of incision in the upper right rectus muscle is blocked off by preliminary infiltration with one half of one percent novocain solution. A short incision,



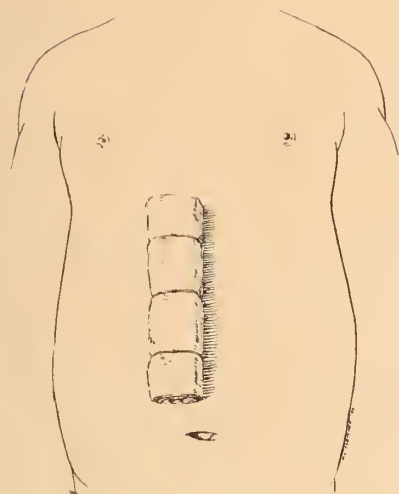
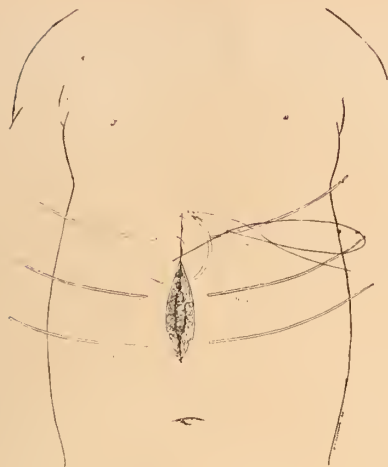


just sufficient to admit the thumb and index finger of the left hand, is made into the peritoneal cavity. The presenting portion of the stomach is seized and the pylorus delivered. The tumor mass is held between the thumb and index finger of the



left hand. An incision is made into it parallel to the long axis of the bowel, just long enough to extend from the duodenal to the antral margin of the tumor. This incision should stop short of the duodenal margin by one quarter inch, lest the duodenum be opened. The primary incision goes through the serous coat and into the circular muscle fibres to a depth of about one half of its

estimated thickness. By blunt dissection with the handle of the knife the remaining circular fibres are severed and the mucous membrane made to bulge into the line of incision thruout. The incision may be carefully drawn open by grasping the edges with the thumb and index finger of each hand. If thought advisable, the mucosa can be partially reamed out with the handle of the scalpel. Hemorrhage, which is usually not troublesome, is now controlled by a hot pack or by a running stitch of catgut around the edges of the incision. Small pieces of muscle tissue laid over and stitched to a bleeding surface have been found effective. This completes the operation. If desired an omental transplant may be laid over the incision and fixed by a few stitches. This refinement of technic is unnecessary. The pylorus is dropped into the abdominal cavity, observed finally to see that haemostasis has been attended to, and then the abdomen is carefully closed in layers.



Tension stitches are loosely tied over a roll of gauze and are left in place for two weeks. Finally the adhesive straps are applied, extending at least two thirds of the way around the body and covering the abdomen from the ensiform to midway between the umbilicus and symphysis.

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#### Discussion of Dr. C. W. Robert's Paper.

DR. W. A. MULHERIN, Augusta: Dr. Roberts has well brought out the surgical side of pyloric-stenosis. He mentioned the prevalence of pyloric-stenosis in babies, and I merely wish to add that he is correct in his assertions, from my personal experience, for its incidence is more common than is believed.

As Dr. Robert's paper dealt mainly with the surgical side, it may not be a bad idea to say something about its medical aspect. It is not a difficult thing to diagnose these cases, if they are properly studied. The clinical picture is that of an infant—usually in the first two months of life, seldom in the first two weeks of life—vomiting without any apparent cause—usually, breast-fed. Projectile vomiting; perceptible gastric peristaltic wave, unusual retention of food in stomach; constipation, or absence of stools; palpability of the pyloric tumor, in fully 50 per cent. of the cases, give a clinical picture that is unmistakable.

A good bit of confusion exists about the pathology of pyloric-stenosis, as shown in our textbooks, by the terms "pyloro-spasm," "hypertrophic pyloric-stenosis." Personally, I think the term "pyloro-spasm" should be discarded, it is my belief that all cases are congenitally hypertrophic-stenosis, and the element of spasm is of secondary consideration. The degree of stenosis determines whether it be classed a medical or a surgical case. A most interesting and important point in the treatment of hypertrophic-stenosis cases is, what cases are medical, which ones are surgical. If we weigh one of these cases every day, and find that the baby is not losing weight, but remaining stationary, he is evidently getting enough food through the pylorus for absorption, in spite of his vomiting, and therefore should be considered a medical case. In addition, even though constipation exists, a mild laxative will prove effective, and will produce a fairly large, and well-digested, stool. In these medical cases, daily stomach washing with soda solution, and Sauer's thick gruel feeding, will probably sustain the patient well enough to get by without operative interference. The principle upon which medical treatment is based, is that if we can make the patient thrive, he will gradually overcome the stenosis.

The immediate surgical cases are quite clear-cut; vomiting is persistent and follows the ingestion of all breast-milk, or artificial feeding. The baby shows a loss of two or three ounces daily; there are no stools, or starvation stools, consisting of small, thin, chocolate colored substance; ordinary inspection reveals a decided lowering of vital force each day. Operation in such a case is imperative, and life saving.

In border-line cases, where it is difficult to class the patient as a medical or surgical one, I would strongly advise that medical treatment be first instituted. If in one week, or two week's time, the case shows no improvement, if vomiting does not improve, and loss in weight persists, it has been my custom to call in the surgeon and ask for operation. I am firmly convinced that there is a useless loss of life in these cases, by physicians and pediatricians delaying operation too long.

As regards the advantage of the Rammstedt over gastro-enterostomy, I feel that the former is simpler, more quickly done—with less shock to the patient—



the viscera less handled, and less vomiting occurs. There is one very important point that I think should be stressed. It is that post-operative treatment is just about as important as the operation. To secure the proper results it is necessary to realize that these little cases cannot be put immediately to the breast, after operation, for the reason that the stomach is either hypersensitive, or unable to hold but very little water or nourishment for several days. At the Children's Hospital in Augusta it is our routine to begin the Murphy drip twenty-four hours before operation, with 10 per cent glucose, keeping the drip on for one hour, and resting three hours. After operation the Murphy drip is continued for some three to five days, and, if necessary, salt solution given subcutaneously within the first twenty-four hours.

As soon as the baby reacts from the operation, it is given one teaspoonful of boiled water one hour, and the next hour one teaspoonful of breast-milk. The water and breast-milk are gradually increased until in forty-eight hours one ounce of breast-milk is alternated with one ounce of boiled water, every one and a half hours. This is gradually increased, as the child's stomach will permit, and at the end of one week we usually, cautiously, put the baby to the breast.

Another point of value, in after-treatment, is to prop the baby up in bed, at an angle of fully 45 degrees, on pillows. This procedure facilitating the eructation of gas, and also helping to prevent vomiting. It may be wise, in some instances, to put the baby over the nurse's shoulder, whenever necessary, to expel the gas from the stomach.

DR. J. W. LANDHAM, Atlanta: Dr. Mulherin has made the statement that the diagnosis of these cases of pyloric stenosis is comparatively simple. I do not know so much about that. We do have the visible peristaltic wave and we have the projectile vomiting, but the differentiation from a case of cyclic vomiting, which frequently occurs, is not always such an easy matter.

I saw three of these cases last summer. They all occurred in the first born; they were all male children and all breast fed children. The diagnosis was confirmed by the x-ray. A better plan to follow in studying these cases by means of the x-ray is to rely entirely on the food intake. For instance, you have a case in which there is active peristalsis for a period of thirty or forty minutes and the peristaltic contractions do not force the material through the pylorus. You may be fairly certain that you have a case of congenital pyloric stenosis. We need that together with the clinical side of the case to confirm the diagnosis. Of the three cases I have seen, two were operated on and got well. One case was not operated on and died in about four or five days. So I think the management of these cases, especially where nothing is passing through the stomach, is distinctly surgical.

DR. WHATLEY W. BATTEY, Augusta: The subject was so well presented that there is very little

left to be said. However, I would like to say a few words in connection with this subject from a surgical point of view. These children had better be operated under a general rather than local anesthetic. It is advisable to administer in these cases a small dose of atropin prior to the anesthetic to avoid a bronchorrhoea, the natural consequence from ether in children.

I might say a word in regard to the technic of the operation. I have operated upon three cases successfully, and the operation is quite simple, consisting of an incision in the abdomen in the epigastric region. The tumor is readily found, pulled out on the abdomen, and with a sharp scalpel you divide the longitudinal and circular muscular fibers of the pylorus down to the mucous membrane. There is one point in the technic to be observed, and it is this, that unless we are careful we sometimes tear into the duodenum. The duodenum is very friable and in dividing the incision it should be done gently with a pair of artery clamps. If we do a quick, rapid division forcibly, we are likely to cause a tear in the duodenum which, of course, can be sewn up, but there may be leakage.

DR. C. W. ROBERTS, Atlanta (closing): I have here a series of drawings which show somewhat in detail the technic of the operation, but which I am afraid you cannot see to advantage. These illustrations, which will be published with the paper bear directly upon the subject stressed by Dr. Battey.

The first consideration is the anesthetic. I believe this operation should be done by combining local and ether anesthesia. I use only enough ether to quiet the child while the infiltration is being accomplished. The area to be incised, the upper right rectus, is blocked off by introducing the anesthetic fluid along the outer margins of the recti muscles and, when necessary along the line of incision. Novocaine is used in one half of one percent solution. Usually the ether can be stopped after the infiltration is accomplished and the operation proceeded with. When the abdomen is opened the tumor is felt for and delivered, and shows very much better than it does in this drawing. The tumor should be brought out more distinctly. It is a plain palpable mass that you can easily pick up, involving the pylorus.

The next thing to do is to make an incision, as Dr. Battey brought out, through the serous coat down to the muscle, then deepen the incision into the muscular tissue, when blunt forceps are introduced and the muscle spread until the mucous membrane presents well throughout the entire length of the incision.

A point that Strauss has called attention to is the reaming out of the mucous membrane. The success of the operation in a given case depends on whether or not the compensation of the stomach has been lost. If the patient is kept away from the surgeon until the contractile power of the stomach musculature is lost, there will not be enough push left in



the stomach to unfold the mucous membrane of the pylorus. Therefore, in the late cases, where the margin of safety is low, the Strauss technic is necessarily the question of reaming out the mucous membrane.

These cases are closed in the usual way, with tension stitches that are left in for two weeks. One of my cases died on the tenth day from opening of the wound with evisceration, because the tension stitches were removed too early. We now insist on leaving these in for two weeks. I have also adopted the technic of encircling the abdomen with adhesive strips, going practically all the way around the body and leaving the dressing on for two weeks, as an added measure of safety.

This last picture is a schematic drawing which I will pass around showing what has been accomplished by the operation. It is a matter of opening up the pylorus and letting things pass through.

## SYMPOSIUM ON PUBLIC HEALTH

### THE RELATION OF PUBLIC HEALTH WORK TO PHYSICIANS' REPORTS.\*

T. F. Abercrombie, M. D., Commissioner of Health, Atlanta, Ga.

In presenting this paper and making a plea for better and more accurate reports, I quote largely from statisticians, sanitarians, and clinicians to show that we are not alone in our opinion that we should have complete records of births, deaths, and diseases.

In October 1917, Governor Hugh M. Dorsey made this proclamation: "Health is fundamental to all success. The prosperity of our State, in the last analysis, depends upon the bodily vigor of its citizens. This is a self-evident proposition—a premise which every right-thinking man must admit. Without good health as an asset, our people cannot meet the severe physical and mental requirements of the times."

The first step in accomplishing the healthful state as stated by Governor Dorsey is to know where, what kind of, and when, disease exists. In 1918, the State Board of Health began the collection of morbidity reports. That

year 45,064 cases were reported, 30,768 being influenza, leaving a total of 14,296 cases of all other communicable diseases reported. In 1920, exclusive of influenza, there were 25,258 cases reported. Influenza included, there were 61,451 cases. In 1919 the Vital Statistics Department was organized, and for that year only 48.3% of the births and 52.5% of the deaths were secured. In 1920, 75% of the births and 85% of the deaths were secured.

Let us consider for a moment why such records are collected and the value to the physician, the state, and community. Whipple, in his book on Vital Statistics, says: "It is of the greatest importance to a nation that accurate records be kept of its vital capital, of its gains by birth and immigration and of its losses by death and emigration, for a nation's true wealth lies not in its lands and waters, not in its forests and mines, not in its flocks and herds, not in its dollars, but in its healthy and happy men, women and children. A well man is worth more to a nation than a sick man; a man in the prime of life is of more immediate worth than an old man or a child; a married man is potentially a greater asset than a single man. Hence, in a nation's vital bookkeeping, the number of people, their age and sex and conjugal condition, their parentage, their health, the rate of births and deaths, are matters of great moment. Their environment is also important; their concentration in cities and villages and congested areas, their mode of housing, their occupation, their state of intelligence, their economic condition, their knowledge of sanitation, all contribute to the sum total of their usefulness to themselves and to society.

"Vital statistics are useful for many purposes. To the historian they show the nation's growth and mark the flood and ebb of physical life; to the economist they indicate the number and distribution of the producers and consumers of wealth; to the sanitarian they measure the people's health and reflect the hygienic conditions of the environment; to the sociologist they show many things relating to human beings in their relations one with another.

"The whole idea of city planning is fundamentally based on the use of the vital statistics of what has been a means of estimating what is to be.

\*Read before the Medical Association of Georgia, Rome, Ga. May 4-6, 1921.

"Vital statistics should be studied as soon as received and not wait until some convenient day when other work is slack and then merely tabulate and make averages for formal reports and permanent records. Vital statistics, especially those of morbidity should be studied in the making, just as the meteorologist reads his instruments daily in order to forecast the weather and give warnings of the coming hurricane."

Some few may say that the state, county and municipal governments are entering the field of curative medicines, thereby robbing the private practitioner of the legitimate income.

Let us consider for a moment what the sanitarian has done for the private physician and the community at large.

Blair, in the Journal of the Medical Council, makes this comment: "We remember when yellow fever invaded the South, as it had Philadelphia long before, and how helpless the profession was, despite its shotgun quarantines, etc. If you want some idea what yellow fever did, go to New Orleans and visit the old cemeteries there. But the sanitarians solved the problem of yellow fever control, and now they need do little about it, for the clinician knows how to handle the cases that sporadically occur."

Clinicians never made the Canal Zone fit to live in, as they were individualist treating each a few cases of disease; but the sanitarians cleaned up the Zone, making it possible for a population to live there and pay physicians for their service, much to the financial advantage of clinical medicine.

Tropical medicine and its financially successful practice has been made possible by the sanitarian, and now the problem is to secure a sufficient number of physicians for tropical residence, and it is still necessary for various Foundations employing sanitarians to practice tropical medicine, which they will turn over to the private clinician as fast as possible.

Malaria, typhoid fever, pellagra, bubonic plague, beri-beri, and other diseases, might be cited wherein certain menaces got out of hand of the clinicians and the sanitarians were called in, in large measure solving the problem involved, and turning the work back to the clinicians. Whole sections of our country are being made habitable and prosperous by sanitation,

and clinicians move in as fast as the sanitarians move out, earning more money than the sanitarians ever did.

The sanitarian is a frontier clinician; he must be that, and in that work it is necessary for boards of health to practice medicine. Clinical and sanitary problems are solved mostly by direct contact with the sick man, with many sick men under scientific observation—such observation as the ordinary clinician is not in position to give. Hence, it becomes the function of the Government to practice medicine in order to solve the problems of medicine, be they sanitary or clinical problems. That does not mean that the Government is usurping the prerogatives of the clinician.

Just recall not so many years back, what was done by the health boards in the treatment of diphtheria and in placing the serum treatment on a simple clinical basis, now available to every practitioner; and remember how the prevention and treatment of rabies, of typhus fever, of tetanus, or Rocky Mountain fever, of cholera infantum, of hook-worm disease, and many other affections were solved by the sanitarians, only to be turned back to the clinician. Did the boards of health usurp the functions of the clinicians in doing these things? They did not; they have actually created several lines of clinical practice, to the financial aid of the private practitioner.

The sanitarian, more than any one else, is responsible for the whole line of biologicals, serums, vaccines, immunization, etc., the use of which is such a source of legitimate income to every physician up-to-date enough to employ them; and the present investigations of cerebrospinal meningitis, influenza, infantile paralysis, pneumonia, etc., will ultimately make available to the private practitioner many lines of treatment that will increase his income. It is just as foolish for the clinician to object to the sanitarians doing these works of clinical investigation as it would be for the farmer to object to the experiment stations in the colleges of agriculture."

I have given you the view point of the statistician and the sanitarian, now let us see what the clinician or the private physician has to say on this subject.

Dr. Stewart R. Roberts in a recent address had this to say: "It is, therefore, appropriate



to ask the importance and the value of such statistics to the medical man. What is his contributions worth in totals? Is it worth while to know the statistical pathology of his political area? Are the numbers of births and deaths valuable, the rise and fall of populations? Is the registration and legal establishment of a birth of value to the individual and the State? Is baby life worth accounting for? Is it worth while knowing how long people live and of what they die? Is medicine just a science, or just an art, or is it not rather both a science and an art and a great administrative function as well? Shall this practitioner of medicine, this artist of this science live clinically unto himself alone, or shall he by reporting statistically and persistently his cases births and deaths become an essential in the function of government, a contributor to his science, a greater service, in his art? Is he merely a practitioner or is he not a far better practitioner of higher and finer discernment and power, by naming what he sees, when he sees it and reporting the result of his services?

(1) Vital statistics are one of the very foundations of the medical man's reasoning and practice. They form the evidence from which he may deduce findings in reference to marriages, births, morbidity, rates of sickness and disease, the cause of death and the actual and comparative health of communities and nations.

(2) Statistical analysis is used more and more in study, in writing and in clinical medicine. Kilgore has shown that from 1840 to 1920 the average percent of quantitative or statistical articles in representative medical journals has increased from three percent to fifty percent. Sydenham was the father of clinical medicine and discussed the qualities of disease and based his therapeutics on his personal experience. Disease to him was a qualitative process, variable in the kind and degree of symptoms. Modern medicine has taken this qualitative idea and added the idea of disease as a quantitative process as well. Sydenham discussed the kind of measles and the symptoms in the spring of the year 1670. The new medicine asks how many cases of measles were there, how many deaths, how many had pneumonia, and medical statistics properly re-

ported and tabulated offer the only hope of answer.

(3) No man in medicine today can think with the larger vision and the higher bird's eye view unless one phase of his thinking is in figures and statistics. For example, the baby was sick, and the doctor came and treated the baby but the baby died. This is a fact, a bereavement, a national loss. But of what did the baby die? What was done to keep him from dying? What was done in his community, in his home, in his state, long before this particular baby was born, to keep all babies from dying? How many babies die anyhow, at what age, and why do they die? Do certain communities have fewer deaths proportionately than the dead baby's community, and what preventive measures do they use? Quantitative medicine naturally inquires into methods of treatment and prevention and discusses results."

A very small percent of the communicable diseases are reported to the State Board of Health.

Mississippi claims to get a record of almost 100 percent of all the communicable diseases that occur in the State. I am quite certain that the Mississippi physicians are no better than our Georgia physicians. The Mississippi physicians have simply realized and assumed their responsibility to the community and the state in which they live by reporting diseases that occur in their practice.

The only way we will ever get sufficient appropriation to meet the needs of the state is to be able to show the Legislature in exact figures just how much disease there is in the state that can be prevented. The only way to get this information is for the physicians to report to the proper authorities all communicable diseases, births and deaths.

Georgia is not in the registration area of either deaths or births. Here again the responsibility rests on the physicians to place us where we deserve to be, as one of the progressive states of the Union.

The Medical Association of Georgia could do no better service to the state than to encourage every individual physician in the state to assume his responsibility to the community in which he lives and the state at large by sec-



ing that all cases of communicable diseases, births and deaths are reported to the proper authorities.

It is not our intention to impose any additional burden on the physician, nor do we want complete reports for selfish reasons. The only reason we ask for these reports is to be able to do the maximum amount of good to the people of the state.

### **PUBLIC HEALTH EDUCATION IN GEORGIA.\***

R. A. Herring, M.D.

Professor of Preventive Medicine and Director of Department of Public Health, Medical Department, University of Georgia, Augusta, Georgia.

Since the year 1914 the rapid advance in public health work within the State of Georgia may well be called remarkable. In that year was enacted the Ellis Health Law which marks the turning point in the progress of public health work in this state. It made possible the standardization of public health work and coordination of the then existent and future public health activities. By the Ellis Health Law the administrative direction of county work was centralized under the State Board of Health, which Board certifies by examination as to the qualifications and fitness of prospective county health officers and otherwise controls the efficiency of county work. Except under exceptional circumstances, as when demonstration work such as malaria eradication is being done, this state government, unlike that of many other states, does not share financially in the public health work of any county. This policy permits public health work in any county to be inaugurated only at the instance of that county's population; in other words, when a county begins such work under a full time health officer, it is on definite assurance that the people of the county desire the work and therefore there is greater probability that the work, once started, will continue. With the above factors domi-

nating public health work in Georgia, steady extension of public health work is probable until within not a great many time basis.

Naturally during the early years of the Ellis Health Law, the progress in county work was slow; also during the period of participation of the United States in the recent world war, the extension of the work was interfered with. However, since the close of the war and the return of interest to local affairs development and extension of county health work has been rapid. Where at the beginning of 1919 only about nine counties had this work going on under the direction of full time health officers, during 1919 and 1920 and to date about thirty counties have authorized the work. This rapid expansion of public health work within the State has demonstrated nothing so forcefully as the dearth of qualified medical men for duty as health officers. The progress already made and future development have made more acute the necessity for efficient and qualified public health workers. With the accession of the public health worker to the ranks of the specialist, the assumption that any physician may be a public health worker has been broken down and it is now conceded that a graduate in medicine, regardless of his experience in the practice of medicine, must receive special training and instruction before he may do public health work successfully. This basic fact has shown the necessity of providing facilities for giving physicians desiring to enter public health work special training. These facilities the State has provided by the establishment at the Medical Department of the University of Georgia of a Department of Public Health wherein instruction and training in preventive medicine and practical public health work may be received.

The Department of Public Health was opened at the beginning of the fall term of the Medical Department in 1920 and during the current year a total of forty public health workers have received instruction, directly in line with the needs of the counties of the state.

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.

Considering the Department in detail, the teaching personnel includes four full time workers. That instruction is given by full time teachers is particularly advantageous.

While the department has been organized primarily for the purpose of giving instruction to graduate students, it also has permitted the incorporation in the undergraduate curriculum of the Medical Department of a thorough course of instruction in preventive medicine. The undergraduate courses are intended to furnish the medical student with a broader and more comprehensive knowledge of the science of prevention of disease, both communicable and non-communicable, than has heretofore been available. Owing to the rapid advances in the science of preventive medicine, its application more and more in the practice of medicine, and the increasing popular interest in the public health a thorough knowledge of this subject is essential to the present day medical graduate.

Undergraduate courses of instruction are required in the second and third years. This required instruction totals one hundred and eighty-four hours for the two classes and is divided into didactic and laboratory instruction. Didactic instruction includes instruction in epidemiology, and general hygiene and sanitation. In epidemiology lectures and quizzes are given covering sources and transfer of infection, principles of prevention of disease, the occurrence, geographic importance, spread and methods of control of the communicable diseases, these studied individually with special stress upon those of particular importance in the Southern states. Instruction in general hygiene and sanitation includes lectures and quizzes in applied hygiene, community and personal hygiene, public health administration, federal, state, municipal and rural sanitation, milk and food control, vital statistics, child hygiene, industrial hygiene, sanitary engineering including water supplies and purification processes, sewerage and sewage disposal, drainage, etc. Instruction is supplemented by field surveys and demonstration in such features of the course as are best impressed by surveys.

Public health laboratory instruction is giv-

en following the didactic work and consists of a composite of lectures, field studies and laboratory exercises comprising the following divisions: (a) Applied bacteriology, diagnostic methods in control of communicable diseases, including cultures for diagnosis and release, examination of sputum, blood, spinal fluids, exudates stools, venereal smears, rabies examinations, preparation of materials for prophylactic inoculations (typhoid vaccine, etc.); (b) sanitary analyses, chemical and bacteriologic examination of milk and water; (c) protozoology and helminthology, in the former being given a general introduction into the life histories, classification of and the technique of laboratory examinations for the protozoa which cause disease in man, such as the trypanosomes, plasmodia, amoeba and other pathogenic protozoa; in the latter the principal animal parasites are considered, their classification, anatomy, life history, modes of dissemination, technique of diagnosis, with special reference to those parasites of local importance; (d) medical entomology, mosquitoes, flies, lice, fleas, ticks and other disease bearing insects of this country are studied as to classification identification, life histories and other biological characteristics, and methods of eradication.

An elective course is offered to students of the senior year after completion of the required courses of the previous years. Original individual problems such as sanitary surveys, epidemiologic studies, laboratory investigations and special studies of any of the different phases of the work of the previous year are assigned senior students who elect this course to be pursued as the time available during the senior year will permit. A thesis is required of each student on the subject assigned him. This elective work is intended to interest the senior student in public health work as a specialty and to serve as a preliminary to more advanced graduate study.

As stated the special function of the Department is to prepare and train physicians and others as public health workers. At present a three months standardized course



of instruction is offered to meet the immediate demand for county health officers. This course consists largely of field and laboratory instruction supplemented by lectures and such other didactic instruction as may be necessary to correlate public health methods for application in the field and laboratory. The course embraces instruction in all of the usual phases of activity of the county health officer and completion of the course will enable the medical graduate to enter county health work thoroughly familiar with county public health problems.

Special graduate instruction is also given and courses are outlined upon application in conformity with the needs of the individual applicant. These may embrace any of the different phases of public health work which the student may desire to take up such as public health administration, epidemiology, vital statistics, and other specialized features of preventive work, public health bacteriology, sanitary analysis of milk and water, protozoology and parasitology, medical entomology, etc. A special feature in connection with the graduate instruction offered is that it is available throughout the year, that is it is not confined to the medical school year, the summer months being the best adapted for instruction in the prevention of the enteric and insect borne diseases and in other phases of public health work. Summer classes are to begin about the middle of June.

Well equipped laboratories have been provided for the Department and ample space is available for class room instruction. Field instruction and demonstrations are given in part by utilization of the Health Department activities of the city of Augusta and Richmond county, by use of the welfare activities of the city and by surveys and demonstrations in the field specially outlined to meet the requirements of each course.

An additional feature of especial importance is the utilization of the present county health units of the state as assignments for further practical instruction after completion of the course at Augusta. To this end arrangements have been made whereby stu-

dent health officers may be sent to the various counties where health work is in progress on an established and efficient basis. This is extremely valuable for those who are receiving instruction preparatory to entering county health work.

Instruction in public health nursing is an additional feature of the instruction offered to be inaugurated in the immediate future. A public health nursing function operating in the city of Augusta is being rapidly developed under the administrative control of the Department of Public Health. This function shortly will have reached the point where it may be utilized for field training of public health nurses. The shortage of qualified workers in this field appears to be as acute as in other phases of public health work, hence the necessity for this instruction.

The basic feature of the public health instruction offered being practical instruction it would appear that this department is destined to fill a long felt want in this section of the country. A consistent effort is being made to develop the course along the lines of practical instruction in public health rather than of intensive theoretical instruction that is available elsewhere. With consistent financial support by the state the school will develop into an extremely important part of the public health organization of Georgia.

### THE SCHOOL CHILD AND HIS PROBLEMS.\*

J. Allen Johnston, M.D., Commissioner of Health, LaFayette, Ga.

As the world increases in age, the races of mankind must of necessity change. Some there are who respond to the desires for more wholesome living and these are the people from whom we expect progress. Mingling with this type of citizen; we find another class, the regressive person whose only ambition is to obtain a miserable existence after the fashion of his forebears. In no place is there a better opportunity to study

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.



man in the making than in the classes of our public schools. In them are miniature representatives of the physical characteristics and mental traits of practically every pre-existing stage in the development of man. And so a study of the school child and his problems gives a rich reward to the worker while a proper utilization of the acquired knowledge will insure a better generation of people for the future.

The purpose of this paper is a very limited one and may be subdivided into two parts. On the one hand is the intent to foster more cordial and co-operative relations between the practicing physicians and the commissioners of health. On the other, is the desire to assist the child in solving his health problems.

Only within the present generation have serious attempts been made to study the presumably healthy children in the daily attendance of our public schools. In former years, all were content with the superficial observation that a certain child made progress in his studies because he possessed some intangible hereditary talent for learning while another was backward and required that knowledge be forced into his system by some physical means. Today our ideas concerning the many failures to impart knowledge to those of proper age are about to be changed. The increasing evidence that 25% of school children have correctible defects that seriously interfere with mental development will soon lead to results which will astonish the most skeptical.

From the viewpoint of their health, children of different localities have in a general way two types of defects that offer an impediment to progress—hereditary and acquired. The hereditary defects of school children constitute the most difficult problem which confronts the worker. The various anomalies of development play a minor part while the environment into which the child is born contributes the major portion of hereditary defects. The few unusual but interesting congenital defects such as cleft palate, talipes, syphilis, partial or complete blindness, etc. properly belong to the spec-

ialists and are much too comprehensive for this paper. Likewise, a minute consideration of the environment of the school child offers a subject of excessive scope. For our present purpose, it is indeed sufficient to note that at least 35% of school children receive from their parents an unwholesome environment. In this atmosphere they are forced to remain till the age of discretion when they either seek better surroundings or settle down to the sordid life given by the parents. 'Tis indeed a sad picture in many of our communities, nevertheless, it is a condition over which the health worker will ultimately prevail. Easy it is to send a family to physical and mental ruin and only the conscientious health worker knows the many hours of labor needed to restore the same people to lives of usefulness. With the present conditions of health work among the school children, it seems a better policy to avoid the intricacies of hereditary defects for only with patient and prolonged effort given to acquired defects will yield results that all may observe.

The acquired defects of school children differ under the varying climatic conditions in the several parts of our own state. In the southern part of the state; hookworm, malaria, tuberculosis, and syphilis are conditions frequently encountered. In the northern part of the state, only tuberculosis and syphilis present a serious question for the health officer.

While at work recently with some three thousand school children, many interesting facts were gathered. That we may appreciate the seriousness of the situation, it would be well to mention the prevalence of some of the acquired defects. Defective teeth 25%. Tonsils 18%. Adenoids (eye and pharyngeal) 4%. Skin and scalp 4.5%. Visual 1.9%. Circulatory system 2%. Pulmonary 0.4%. Mental and nervous 1.0%. Orthopedic conditions 0.6%. Syphilis 6.0%. It is very difficult, indeed, to accurately classify some of the above defects—especially is it true of syphilis. Still, from the view point of benefit to the individual, it is of little concern to the health officer to know that a syphilitic condition was acquired in

utero, during the process of labor, or later in life. The treatment of the defect will be the same under all conditions.

Teeth, tonsils, and adenoids have been so freely discussed in the past ten years till I believe that all have come to properly value the benefit which comes from the correctness of such defects. In this connection two illustrative cases will serve to emphasize not only the importance of these problems to the school child but also the wonderful good that may come from the systematic examination of school children. Both cases were in children belonging to families of more than the average means and intelligence. On notification by the school examiner that Mr. A's child required treatment of his tonsils, no attention was, as usual, given to the information until some three weeks later when the child became quite ill. A physician was called and a diagnosis of suppuration of the tonsils was made. The second case was one of chronic tonsils which presented again acute symptoms. An operation was urged but deferred on account of family prejudice to the procedure. Some months later the child came down with a very severe tonsillitis. During the few days of acute illness, it was found that the urine contained many casts and much pus. Some days later an haematuria obscured the other urinary findings. A severe anaemia resulted and the condition of the child seemed alarming. Finally, a tonsillectomy was performed. At the end of six weeks, the haemoglobin approximated normal. The urine had improved so decidedly that only a trace of albumin and a few casts continued present. Altho a murmur at the base of the heart persisted, the weight continued to increase and the outlook for the future seemed very favorable.

These types of cases are not rare. They occur almost daily in the experience of the school inspector who really examines and studies the children. His harvest of corrected defects is now relatively small and when the time used is considered, the situation seems almost hopeless. With persistent endeavor, the public will soon appreciate the practical value of the work. Then will come

a solution of a very difficult problem—the prevention of remote pathologic conditions of heart, blood vessels, and kidneys which are caused by primary diseases of tonsils and teeth. Be the attitude of the public what it may, the worker can usually handle in a satisfactory manner, the opinions of the parents who are responsible for their children's health and future. Having persuaded them to undertake a given correction of a defect, the school examiner endeavors to find a local practitioner to do the work. His efforts are met with indifference even with actual discouragement by the profession both medical and dental. This statement is not given in a spirit of criticism of the profession for such obsolete views of a very practical subject but to awaken both the medical and the dental professions to a broader conception of their ideals—the prevention of future illness by the application of simple measures in the present.

The school examiner can contribute almost nothing to the uplift of the physicians' ideas. A practicing physician is usually well satisfied with his methods and he is opposed to any change in them until the inspiration comes from his contact, on an occasion such as this, with the views of the best specialists of his state.

In the group of children studied 10% of all defects may be considered in a paragraph on dermatology and syphilis. The true skin cases will equal 4% while syphilis will undoubtedly claim 6%. The skin cases offer a psychologico-parasitic problem for the school examiner due to the fact that scabies is the offender. The child carries the parasite and when the parents are informed that the child has been excluded from school until cured, war is immediately declared. Many days will be needed to calm the offended mind of the parent. Fortunately not all school examiners have an incidence of itch to equal 4%. In fact the fewer cases of this disease he encounters, the more pleasant will be his work. However, if the truth were known, 4% represents just about half the number of scabies infections in this group. In the majority of schools,



there is no place where a child may be stripped for an examination and so only the easily accessible lesions are found. Syphilis on the contrary is a defect of far more serious consequences but one which excites in the parent less rage than the former. Some parents seem happy to explain the child's condition on the grounds of impure blood but not always are they as enthusiastic to institute treatment as the seriousness of the case warrants. Many cases that are urged to have a Wassermann run receive the suggestion with absolute indifference. Even those who take the advice kindly and accept treatment continue for such a short period till an ultimate cure is not even approached.

Skin diseases, especially scabies, are perhaps more distracting than many other defects. The cutaneous irritation annoys the child at night and the resulting sleeplessness unfits him for school work the following day. While trying to work, his attention is applied to the lesions of his skin rather than to his books. 'Tis indeed a disgrace to tolerate any disease which is both curable and preventable. But the fact of its presence remains and until our physicians give better service, we may expect a continuance of scabies among the children of our schools.

Of most concern to the teacher is the mental development of the child. Frequently the school examiner is called for an examination to explain the deficiency of certain children. In many cases; any one of several conditions, improper food and air, unhygienic surroundings, or physical defects would account for the child's backwardness. Still, there are cases where no explanation can be satisfactorily given while other cases may be accounted for by the teacher's inability to impart knowledge. Of course, this last condition is one which never occurs to those in authority.

Recently a study was made of 32,500 Oregon school children. Of this number 500 were found to be more or less mentally deficient, "A fact which is of much significance when it is remembered that the condition of the children of today is the best possible index to the condition of the community

of tomorrow and indeed to the future of the races."

To quote from the Surgeon General: "The prevention and correction of mental defectiveness is one of the great public health problems of today. It enters into many phases of our work and its influence continually crops out unexpectedly. For instance, recent studies made in connection with the spread of venereal diseases have shown that feeble mindedness is an important factor in prostitution. Again, work of the United States Public Health Service in connection with juvenile courts shows that a marked proportion of juvenile delinquency is traceable to some degree of mental deficiency in the offender." Should such a survey of Georgia be made, the results would no doubt be equally astonishing.

The usual communicable diseases, scarlet fever, chickenpox, measles, smallpox, and diphtheria rob the child of perhaps a larger number of school days than any other combination of conditions. Especially, in the group above studied, smallpox is a serious menace for the reason that only thirteen per cent of the above children have been successfully vaccinated for smallpox. Public opinion in certain communities regarding the evils of vaccination is as erroneous as in the primitive days when vaccination first was attempted. Many parents express a preference for smallpox rather than submit to vaccination. And so, if the school examiner did nothing more than educate the children to the harmlessness and wisdom of the prevention of smallpox, his efforts would be well rewarded. With equal precision, the experienced health officer may control other communicable diseases by instituting the proper method even though no specific preventative is at hand.

The school child then is besieged on every side by unhealthful conditions both mental and physical which lower his vitality, decimate his efficiency, despoil the pleasurable profits of his school life, and even deprive him of an healthy adult career. One who shares with the school child these problems and successfully aids in their solution feels just pride in the completion of his tasks—



the leading on to robust manhood and womanhood the delicate bodies of our boys and girls. One school worker among 5000 pupils is almost helpless. He can only point the way. With the united efforts of the profession of medicine and allied workers, wonderful results will in the future be obtained.

Discussion on the Papers of Drs. Joseph P. Bowdoin,  
T. F. Abercrombie, R. A. Herring, and  
J. Allen Johnston.

Dr. L. C. Allen, Hoschton: Dr. Abercrombie has given us a good paper, as he always does when he favors us with a contribution. As was stated this morning, there is a large amount of preventable sickness, preventable deaths and preventable inefficiency among our people and an enormous financial loss which such sickness, deaths, and inefficiency entail, and these Dr. Abercrombie and Dr. Bowdoin and their co-workers are trying to lessen as best they can with the limited means at their command.

Boards of Health should not undertake to do medical practice for private individuals, nor to supplant the work of private physicians, but they have a field of work that private physician cannot possibly do, and this work is indispensable for the public safety. We should remember, gentlemen, that unless we send in all required morbidity and mortality reports our health officials will be greatly handicapped in their efforts to make our great state a more healthful place in which to live. It is absolutely necessary for sanitarians to know what disease is prevalent in any community at any given time before any effective preventive measures can be inaugurated.

The old idea of cleaning up the town once a year, in the spring, raking up the papers, sweeping the back yard, and burning up the rubbish is well enough for its esthetic effect, but as a means of preventing disease, it probably does as much harm as good, for it gives a false sense of security, which in turn causes more effective means of disease prevention to be neglected, besides the town only stays clean one day. Whenever you go bird hunting, and flush a covey, if you shoot at the whole flock you will probably fail to hit a bird, but if you pick out a particular bird, and aim at it, and shoot, if you aim is true, you will bring down the meat. The sanitary officer must always have a particular aim in view if his work is to be of value.

Measures effective in preventing one disease will often be of no value in preventing other diseases. You cannot prevent glanders by muzzling dogs, and you cannot prevent hydrophobia by cleaning up back yards, or by burying dead carcasses. You can stop an epidemic of bubonic plague by killing rats, but you would not prevent one single case of typhus fever. In this latter case you have got to get the "cooties."

Dr. Bowdoin could not lessen the spread of hook-worm disease by preaching sexual cleanliness and purity, neither can you prevent venereal diseases by building sanitary toilets. The means known to be effective in preventing malaria have not the least efficacy in preventing typhoid fever. To prevent the spread of smallpox you do certain definite things; to prevent the spread of tuberculosis you do certain other things; to prevent the spread of ANY disease, it is necessary to adopt the means known to be effective in checking that *particular disease*. This is scientific sanitary work, and is the only kind that has any value whatever. Now, the only way our health officers have of finding out what particular work is needed in any community at any time is by our morbidity and mortality reports. Unless these reports are sent in and made use of a large amount of money and effort will be wasted. This is a public duty that we should not neglect, and I am sure you will do it gladly.

I cannot bring myself to believe that any member of this Association is opposed to any of the work of our State Board of Health, or to the activities of any municipal or government health official from the selfish motive that such work, done in the interest of public health, may interfere with his private practice or personal income.

The physician is a trained soldier. The enemy he fights is disease. From the day he enters the medical college until he graduates he is constantly trained in combatting disease. A large amount of this training has to do with disease prevention. If the medical student does not learn these things, he learns nothing. After he begins practice he can only do the things that he has been trained to do, namely, prevent and cure disease. He knows nothing else. It is his business. It becomes a part of his nature. Every day of his life, as Dr. Palmer said here this morning, the physician is doing work that tends to lessen his income. He does nothing else. His every act is an effort to stay disease, and thus weaken the source of his business. But be it said to his credit, the true physician, like a good soldier, has ever lived up to his training, and the high tenets of his calling. Whatever shortcomings in making reports may be alleged against us, are due to carelessness, or habit, and not to our opposition to this work on selfish grounds. The older men have not yet become accustomed to this duty, and it is hard for an old man to change the habits of a lifetime.

DR. GEORGE R. WHITE, Savannah: I want to take this opportunity to pay tribute to the excellent work of the two members of the State Board of Health who have presented papers. They have given us statistics by the tens of thousands and have told us of the various means that have been carried out which makes a creditable showing.

It has been stated that this health work is the basis of our progress in preventive medicine. We have got to know what is going on before we can do anything to prevent it, and I hope the army les-

son will appeal to all of us to get to work in our respective communities and help along the work they are trying to carry out. In spite of the splendid work they have done, health conditions in Georgia are far from satisfactory. We are not in the registration area, although North Carolina is in that area. We have a county system of enforcing the laws by the county board of health, but that is not working out very satisfactorily in most counties. In some counties, where there are good active doctors, the law is carried out, and they are doing splendid work, but in the majority of counties in Georgia this is not done. Of the towns in Georgia, there are but three cooperating with the Public Health Service and are making the reports that they require. These towns are Atlanta, Savannah, and Brunswick. The other towns of smaller size are not cooperating with the Public Health Service.

Let me say a word about what Savannah is doing and what she is not doing. Savannah has been in the field for a long time collecting statistics. These statistics were in good shape before the Public Health Service took up this matter. They have been working along these lines for forty years in trying to educate doctors to attend to their duties in these matters. In Savannah we get practically all the deaths registered. That is not entirely due to the work of the doctors because the undertakers check up the deaths. They have to have a permit to bury a body. Practically all deaths are registered, and 80 per cent. of the births are registered. Most of the white births are registered, but that is not entirely due to the care of the doctors. They watch the newspapers and hear remarks about the births that take place, and they have a good recorder's court in Savannah and a doctor is called before that court for not reporting a death. Most of the births among white women are therefore recorded.

Contagious diseases, typhoid, smallpox, scarlet fever, etc., are reported very well. A child must have been vaccinated before he can go to a public school. In this last epidemic that swept over the state 20,000 vaccinations were carried out in a short time. Malaria is reported in only about half of the cases, syphilis still less, and in the reporting of gonorrhea we are rather lax.

I was glad to hear one of the speakers say that the laws are going to be revised in regard to the reporting of these diseases. The criticism we hear now on every hand is that the system they have started to work with is too complicated and breaks down of its own weight. It is an excellent law we have, but it is not quite the thing to start in with. The laws we have now are complicated; it takes the work of a clerk to get in the reports. I can imagine in the smaller communities this would be quite a burden. The law in regard to reporting cases of gonorrhea is complicated, and some parts of it you can see on the face of it are hardly intended to be reported.

DR. THOMAS D. WALKER, Macon: I want to refer to the last paper by Dr. Johnston on school children. Of the 22,000,000 children in America, 16,000,000 of them are defective or have physical defects. This condition is being considered by educators at the present time, and they are appreciating the important fact that health is one of the fundamentals, and it is one of the three phases of education which are now being considered. We all agree that adults are proverbially poor advocates of health habits. In order to develop health habits it is absolutely necessary to begin with the child. The child goes to school at an early age; is in a receptive mood. They have the machinery for teaching, and the child is there six or eight years. If health habits are not undertaken at that age, they are never undertaken. We should lend our professional and moral support to the teaching of health to the school child.

DR. HENRY W. CLEMENTS, Ray City: I have been very much interested in these papers, and I have come to one conclusion, namely, that the prevention of disease can only be accomplished in one or two or three ways, the cooperation of physicians, and more appropriations for the State Board of Health. I think somebody is at fault. Berrien County in the last year spent through an act of the legislature for good health twenty-five thousand dollars. That amounts to something, but now, how much has Berrien County done toward the preservation of the health of its people? Not as much as one might expect. I suppose twenty-five thousand dollars is about one-quarter of the money spent in Georgia for health purposes. The way to improve the health of the people is to cooperate with the State Board of Health and get more appropriations from the legislature. We cannot do this work successfully unless we get money to do it with. I had a talk with Dr. Haygood for three or four hours on this subject, and it almost makes a man shed tears to hear him talk about it. Take the tuberculosis institute, it is doing good work, and if we could have more money we would be better off. There is no greater asset to any county, with all its wealth and beauty, than to have its people in good health.

DR. JOHN H. HAMMOND, Lafayette: I do not feel satisfied with the emphasis that Dr. Johnston puts on the physical defects of children, but that part of the subject has been discussed already perhaps sufficiently. There are two percentages given that rather surprise me, the high percentage of cases of syphilis, 6 per cent., and the other small percentage of tuberculosis, .4 of 1 per cent. If we have now 6 per cent. of syphilis in the schools before the increase of syphilis which we all admit has occurred since the European War, begins to show, what may we look for after a few years more. I believe, however, that Dr. Johnston has included in his estimate not only active syphilis but also the remote effects of this disease which are not communicable. This interpretation would modify, in a measure, the importance of syphilis as rated in



this paper, considered simply as a school problem.

It has been my impression always that we had a larger percentage than .4 of 1 per cent. of tuberculosis in the schools, and if I did not know something about Dr. Johnston's ability and his careful, conscientious, scientific accuracy, I would be a little disposed to be skeptical because I have had the impression that the percentage was much higher. However, .4 of 1 per cent. constitutes this disease an important problem in the schools. I do not suppose that any reasonable man would permit a tuberculous person to live in his house in close association with his children, for any amount of money; yet, with strange inconsistency, we require them to enter schools where they are necessarily in close contact with tuberculous children for years, during that period of life when they are most susceptible to infection. I believe it would be hard for any one to name in terms of money the value of the work that consists in the elimination of this danger from the schools.

DR. W. A. MULHERIN, Augusta: I am not a Public Health man, but am vitally interested in preventive Pediatrics, which I believe comprises 50 per cent. of Public Health work today. While sitting here listening to the papers on Public Health, and hearing it rightly stressed that Georgia physicians do not make proper reports of births in Georgia, and in consequence do our State a great injustice by not allowing it to be classed in the registration area for births, it appears to me that there is one remedy for this trouble.

This remedy is a fair and equitable one. There is a law in Georgia requiring physicians to report all births. There is also a law that gives the Board of Health, and physicians, the right to quarantine contagious and infectious diseases. The latter law we carry out quite well, for when we meet a case of scarlet fever, or diphtheria, we tell the parents that they must carry out certain precautionary measures to prevent spread of the disease. When it becomes necessary, we tell the parents that they have no option in the matter of keeping their child in one room, that they must conform to the law, and we invariably see that they do.

Is it not only fair for us to comply with the law requiring the reporting of births, which means so much good for our State and to ourselves? As a matter of equity, we have no more right to make parents conform to the law, than to make ourselves comply in every way with this law that prescribes the reporting of births. I recognize that it is not a good rule to insist upon the enforcement of laws for physicians, provided it can be accomplished in some other way. I believe every method, every inducement, even pleadings, have been resorted to, in an endeavor to have physicians report births in our State. The fact that our Secretary of the State Board of Health, Dr. Abercrombie, has to again make the request that Georgia physicians should

report births, is sufficient evidence that all measures have been useless. The fact that Georgia is not included in the registration area for births has done—and is today doing—our State a great injustice.

Dr. Herring has just mentioned the point that the National Child Health Council is at present looking for a city of some fifty thousand inhabitants, where it is to expend some \$200,000 in intensive infant and child-conservation and welfare work. Dr. Herring and myself learned this fact, and made application to them to have Augusta utilized for the demonstration. After a good bit of correspondence, and every encouragement, and the frank statement that we measured up in every way to their requirements, and were fully qualified as the logical place, we were eventually ruled out of consideration on one single point, which was that *Georgia was not in the registration area for births.*

I presume there are many other instances where our State has lost things that would redound to its credit, had we been in the registration area for births. Personally, I think it is high time for us to do as other States have done, notify the physicians that Georgia has to be included in the birth registration area. To do this, notify them that it will be absolutely necessary to report births. Also mention to them that all means have been tried to have physicians report births, but have failed. The law is going to be enforced, and it is the State Board of Health's sincere wish that they will not be penalized for infraction of the law. This, I believe, is the only way that we will ever get Georgia in the birth registration area. I am firmly convinced that if this step was taken, the State Board of Health would be cursed out roundly, for about two years, and the succeeding years would find the physicians high in their commendations, and boasting of the good work the State Board of Health had done, by getting Georgia in the birth registration area.

DR. J. LAWTON HIERS, SAVANNAH: All of the papers now under discussion are of intense interest, and we should, if possible, have more time for their consideration.

With reference to the paper read by Dr. Johnston, I want to say that the subject he has presented has been dear to my heart for many years, for each and every one of us must acknowledge that a child, in order to make a successful statesman, banker, business or professional man, must be a man of health and vigor. I am sure Dr. Johnston must have realized that it was utterly impossible for him to elaborate every point he touched on, therefore, I want to emphasize what he said a little more fully with reference to infected tonsils and adenoids. I feel his percentage of only eighteen per cent of infected tonsils and four per cent of adenoids are entirely too low. Those of you who have been doing nose and throat work for any length of time I am sure will agree with me that if Dr. Johnston would check up that line of work a little more carefully, not that



I want to accuse him of slack work, he will find that the percentages are much greater than eighteen and four. Just here I want to lay stress on the very great importance of not only locating and pointing out these troubles but to urge upon the parents the very great importance of having the defects corrected. Furthermore, I want to call attention to one point that he did not bring out, and that is eye strain. Very many school children that are considered more or less stupid in their school work are made so solely on account of visual defects, and too much cannot be said on this point. Many children not only have headache but cannot actually see the blackboard, consequently they are classed as backward. They are sent home. Many of them are sent to feeble-minded schools. These children may have their vision and hearing impaired on account of an error of refraction and adenoids, and if these two conditions alone were corrected many children would be leading their classes that are now sent to special classes on account of being considered backward. I hope each and every one of you who have the welfare of the future men and women of our country at heart, will give closer attention to the vision and hearing of the child. Also to diseased tonsils which is so frequently the cause of very many diseases.

DR. EARL K. LAZENBY, Camak: These three papers on public health have touched on some very important points, some of which concern families in the rural districts more than they do those in the cities. Every home that you go into cannot keep house without an almanac. The almanacs, as you know, advertise patent medicines, such as wine of cardui, etc. I have had many people ask me questions about the patent medicines advertised in these almanacs. It seems to me, if the State Board of Health wants to do something for the people of Georgia they should place in every home an almanac with health hints in it and other data they see proper. Then these almanacs would be read by the people who really need this information, and then they would know what the State Board of Health of Georgia was doing in regard to the public health.

DR. JOE P. BOWDOIN, Adairsville (closing on his part): It seems to me, the new form we have now is a simple one, and so far as I know there has been no particular objection raised to it. The original blank was not practical and we did not continue its use very long.

With reference to the infection of school children with syphilis, I would like to say that recently a survey has been made of children passing through the children's clinic St. Louis and 5 per cent. of the children who passed through that clinic were found to be syphilitic.

A good deal of money is necessary to publish a health almanac. We would be glad to get out such a health almanac for the people of Georgia, but we haven't the appropriation.

I called attention to a point which should receive consideration, namely, a committee appointed to look into the matter of drafting a law concerning patent

medicines and preventing the prescribing of any remedy for venereal diseases except by a physician.

We requested such a law and it was introduced last year we got a favorable committee report, and we went before the retail druggists of the state, and their association said they would endorse it.

DR. T. F. ABERCROMBIE, Atlanta (closing on his part): I have very little to add to what I have already said. Being identified with the State Board of Health, I have been particularly pleased at the reaction of the medical profession toward public health work in this state.

Dr. Mulherin brought up the point as to why we did not enforce the law regarding the reporting of births, and deaths especially. We feel, at the State Board of Health, that the time is not quite ripe to come out and prosecute the doctor through the courts. That is what we may have to do. In other words, we have felt that the doctors should go with us instead of fighting them. There have been a few prosecutions by the local registrar whose duty it is to enforce the law. So with communicable diseases, we are not quite ready to prosecute the doctor. When we go into court we will have the doctors to fight instead of acting with us, and probably it would defeat our purpose.

DR. J. ALLEN JOHNSTON, Lafayette (closing): I appreciate the criticism of my paper. There are many things which I would like to have said but time prohibited it. I consider the figures I gave very conservative. I have undertaken to be absolutely sure that conditions really existed before reporting them as positive. The work in the past has been unpopular, especially in regard to reporting cases of infectious diseases. One reason why we fail to get correct reports is due to the fact that a physician may see a case during the period of incubation of the disease, and the remedy which he prescribes brings the desired relief. As a result he is never called back for a second visit. In the meantime the patient erupts with an infectious disease and the physician does not know the disease has existed. That is one explanation for not receiving accurate reports of cases of infectious diseases.

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### THE VALUE OF BASAL METABOLIC AND BLOOD CHEMICAL STUDIES IN MODERN MEDICINE.

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During the last few years, progress in medicine has been exceedingly rapid. New

tests, new diagnostic instruments, and new methods of study have come into a somewhat limited use. Two of these newer aids in the practice of up-to-date internal medicine are the determination of the basal metabolic rate and the quantitative determination of certain constituents of the blood. In presenting a short discussion of the value of these two aids in diagnosis, prognosis, and treatment, of course I must omit much that is interesting; and for these omissions, I ask your indulgence.

Basal metabolism is, you recall, the minimal heat production of an individual, in a state of complete mental and physical rest, after a fast of fourteen or fifteen hours. The determination of the basal metabolic rate may be made with one of several apparatuses, the simplest and most practical of which are the closed-circuit apparatuses in which the oxygen consumption only is measured.

Table 1 gives, at a glance, the variation of basal metabolism that has been observed in most of the conditions which have been studied.

BASAL METABOLISM AS REPORTED IN VARIOUS DISEASES.

	Per cent. basal metabolism above or below average normal.		
Normal.....	—15	to	+15
Obesity.....	—14	to	+10
Diabetes mellitus:			
Severe.....	—19	to	+23
After fasting.....	—36	(lowest observed)	
Emaciated.....	—37	to	—10
Cardiorenal without dyspnea.....	—10	to	+10
Cardiorenal with dyspnea.....	+25	to	+50
Nephritis with edema.....	—40	to	+14
Nephritis without edema.....	+ 2	to	+29
Pernicious anemia.....	+ 2	to	+33
Leukemia.....	+21	to	+123
Typhoid fever.....	As high as +50		
Tuberculosis (temperature about 1040 F.).....	+15	to	+35
Tuberculosis (no fever).....	—33	to	+15
Prolonged undernutrition.....	—30	to	—10
Exophthalmic goiter:			
Very mild.....	+15	to	+30
Mild.....	+30	to	+50
Severe.....	+50	to	+75
Severe service.....		Over	+75
Cretinism and myxedema.....	—40	to	—15

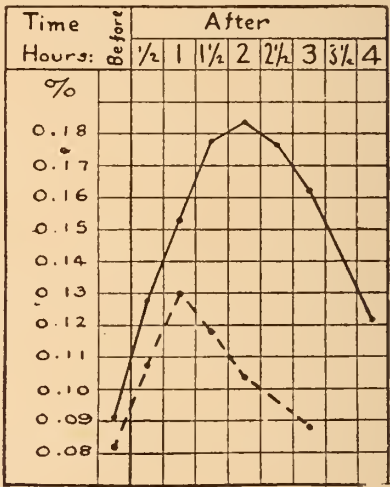
(These figures have been taken largely from the publications of E. F. DuBois and his collaborators, though other sources have been consulted.)

At the present time, the chief value of the basal metabolic determination is in the diagnosis and treatment of diseases of the thyroid gland. This determination is by

far the best and most reliable criterion of the severity of the hyper—or hypo-thyroidism, and it is likewise the best test to determine the value of treatment. In diagnosis, it is of paramount importance in differentiating mild hyperthyroidism from early tuberculosis, neurasthenia, and other such diagnostic difficulties.

In hyper—and hypo-pituitarism, there seem to occur an increase and a decrease, respectively, of the basal metabolic rate; but these variations are much less constant and much less marked than those accompanying disturbances of thyroid secretion.

The other diagnostic, prognostic, and therapeutic aid to which I desire to call your attention and in which I hope to arouse your interest, is the subject of blood chemistry. The most important constituents of the blood, so far as our present knowledge of blood chemistry is concerned, are the following non-protein nitrogenous substances: urea nitrogen, uric acid, creatinine, and sugar.



Curves representing the average results, after the ingestion of 100 gm. of glucose, in three normal persons and in ten patients with hyperthyroidism of low degree. Solid line, hyperthyroid cases; broken line, normal cases.

On the accompanying chart you see the normal value of these substances, and also the findings in some other conditions. The **total non-protein nitrogen** is increased in some forms of acute nephritis, in moderately severe chronic interstitial nephritis, in uremic nephritis, in bichloride poisoning,

chronic lead poisoning, bilateral polycystic kidneys, and other conditions. Probably only in uremia, acute intestinal obstruction, and profound anemia from hemolysis, does the amount of total non-protein nitrogen rise to more than 100 mgs. to the 100 c. c. of blood. Such an amount is of very grave prognostic significance, as a rule.

**UREA NITROGEN**, normally constituting about fifty per cent of the total non-protein nitrogen, but varying greatly in this percentage in disease, is mostly exogenous, and increases in amount in practically all cases, except in gout, when there occurs an increase in the total non-protein nitrogen. The amount of urea nitrogen may be greatly reduced by the use of a non-protein diet. When there is only a moderate amount of retention in nephritis, there is no necessity for the exclusion of meats from the patient's diet.

**URIC ACID.** The increase in the amount of uric acid, in the diseases named on the chart, is much less than that of urea. An increase of uric acid usually accompanies

all conditions in which there is an increase in the urea. When the uric acid only is increased, gout is very probable. In certain infectious diseases, particularly pneumonia, there is a marked increase of uric acid. The amount of this substance may be decreased by the exclusion of purins from the diet. By a blood chemical examination we may distinguish uncomplicated gout from uncomplicated arthritis.

**CREATININE** is wholly endogenous, being derived from muscle tissue. In disease, it is the last to increase—so far as urea and uric acid are concerned—and the increase is very significant. Except in a few cases of acute nephritis, the finding of five milligrams of creatinine to 100 c. c. of blood has been followed by death within a few hours to within two months.

The **C O<sub>2</sub> combining power** of the blood is always reduced in inverse proportion to the degree of acidosis present.

The **chlorides** of the blood are sometimes increased in the acute and chronic edematous types of nephritis.

CHARACTERISTIC BLOOD CHEMICAL FINDINGS.

In	Total N. Mgms. in	Urea N. 100 c. c.	Uric Acid of Blood	Creatinine	Sugar Per Cent.
Normal.....	25.-30.	12.-15.	1.-3.	1.-2.5	0.08-0.12
Chronic Nephritis.....	30.-80.	15.-50.	1.-3.	1.-3.	
Uremic Nephritis.....	120.-350.	80.-300.	4.-15.	4.-34.	0.10-0.20
Eclampsia.....	Practically no increase.				
Acute Intestinal Obstruction.....	75.-125.	45.-100.			
Bichloride Poisoning.....	30.-100.	15.-75.	2.-10.	1.5-7.	
Acute Nephritis (some cases).....	30.-100.	20.-80.	1.-12.	1.-7.	
Thermic fever.....	25.-100.	15.-80.	1.-15.	1.-6.5	
Mild Diabetes.....		12.-15.		1.-2.5	0.15-0.30
Severe Diabetes.....					0.30-1.10
Renal Glycosuria or Renal Diabetes.....					0.08-0.12
Gout.....			3.5-6.		
Rheumatism (uncomplicated).....			1.-3.		
Essential hyper-tension.....			3.		

In **diagnosis**, estimation of the urea, uric acid, and creatinine (and the total non-protein nitrogen, if one cares to do it) is of value in determining whether a comatose patient is uremic or not; in differentiating uremia from eclampsia; in differentiating chronic nephritis without edema from essential vascular hypertension; in differentiating uncomplicated rheumatism from gout; and is of help in arriving at a diagnosis of some other conditions listed on the chart. The estimation of the blood sugar, at regular intervals following the ingestion of a

certain amount of dextrose, is the best method to differentiate diabetes mellitus from renal glycosuria or renal diabetes. In gastro-intestinal cancer, Friedenwald and Grove have shown that there is a fairly typical blood sugar curve after the ingestion of a certain carbohydrate meal. In diseases of the pituitary, this carbohydrate tolerance test is of value in making a diagnosis. Lately, the writer reported in the Journal of the A. M. A., the results obtained in three normal and in ten cases of early hyperthyroidism following the ingestion of 100 grams



of glucose; the blood sugar curves obtained were quite different in the normal and the early hyperthyroids; and the test seem-

ed to be of distinct value in the diagnosis of early hyperthyroidism.

BLOOD SUGAR PERCENTAGE IN THREE NORMAL PERSONS AND IN TEN CASES OF MILD HYPERTHYROIDISM

Condition	Time								Basal Metabolism, per Cent.	Goetsch Test
	Before	1/2	1	1 1/2	1	2 1/2	3	4		
Normal 1-----	0.089	0.108	0.127	0.125	0.118	-----	0.086	-----	+ 2	—
Normal 2-----	0.077	0.101	0.132	0.108	0.094	-----	0.083	-----	— 1	—
Normal 3-----	0.093	0.116	0.133	0.126	0.100	-----	0.095	-----	+ 1	—
Hyperthyroid 1---	0.084	0.109	0.148	0.193	0.198	0.183	0.151	0.113	+16	+
Hyperthyroid 2---	0.103	0.133	0.143	0.160	0.179	0.186	0.172	0.122	+12	+
Hyperthyroid 3---	0.099	0.145	0.164	0.222	0.215	0.179	0.173	0.118	+17	+
Hyperthyroid 4---	0.097	0.135	0.189	0.175	0.183	0.174	0.160	0.118	+24	+
Hyperthyroid 5---	0.082	0.100	0.115	0.136	0.149	0.160	0.156	0.120	+12	+
Hyperthyroid 6---	0.088	0.118	0.152	0.168	0.179	0.185	0.177	0.131	+23	+
Hyperthyroid 7---	0.108	0.157	0.187	0.208	0.225	0.201	0.185	0.136	+15	+
Hyperthyroid 8---	0.079	0.111	0.127	0.161	0.152	0.136	0.123	0.096	+21	+
Hyperthyroid 9---	0.091	0.128	0.162	0.189	0.198	0.204	0.195	0.149	+18	+
Hyperthyroid 10--	0.106	0.143	0.163	0.166	0.167	0.161	0.150	0.111	+13	+

\*—Before and after ingestion of 100 gm. glucose, compared with basal metabolic determinations and epinephrin test of Goetsch\*

In the matter of **prognosis**, an increasing amount of urea, uric acid, and creatinine in chronic nephritis, warrants a poor prognosis, and a decreasing amount indicates improvement. In chronic nephritis, the finding of 100 mgms. of urea per 100 c. c. of blood is a very bad omen; and a creatinine content, in this disease of 5 mgms. of more per 100 c. c. of blood is like unto a death sentence with the fatal day not far distant.

In the treatment of chronic nephritis without edema, the urea content of the blood determines the amount of protein which may be safely ingested;—if there is only a moderate increase in the blood urea, a moderate amount of protein in the diet is permissible; but, if the blood urea is high, the protein intake should be reduced to a minimum. In the treatment of diabetes mellitus, estimation of the blood sugar yields far greater information as to the true condition of the patient than does any urinary test of which we have knowledge. Not infrequently, the blood sugar is high when the urine becomes sugar-free, with the result that physician and patient both have a false sense of security.

Time does not permit the inclusion of case reports to substantiate the statements made. But, if you will try out these methods of examination for a sufficient length of time, you will agree that basal metabolic and blood chemical studies are of great value in the different conditions mentioned.

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#### INTERPRETATION OF HEADACHES.\*

M. T. Edgerton, Jr., A.B., M.D., Atlanta, Ga.

Headache is one of the most common symptoms met with in medicine and the determination of the cause thereof frequently taxes the skill of the most expert diagnostician. Great harm may result from errors in diagnosis either from failing to recognize some organic condition or from needless operative procedures.

\*Read before the Medical Association of Ga., Rome, Ga., May 4-6, 1921.

Every case of persistent headache should have a careful history and a careful physical examination. The history alone will diagnose most cases from functional causes while those from organic disease require a physical examination.

The pathological basis for headache is irritation of the nerve endings in the dura. These nerve endings arise from the trigeminal principally but there are also branches from the posterior cervical, sympathetic, hypoglossal and vagus. The innervation of the dura at the base is much greater than at the vertex. This fact explains the frequent basal location of the persistent type.

There are three main general causes; Organic diseases, toxic states and functional conditions. With few exceptions, damage to any organ in the body will produce headache but the most common causes from organic diseases arise from pathological conditions either in the skull itself or from diseased conditions of some of the special sense organs.

Headaches from toxic conditions may arise from toxins from without the body such as gases, drugs, or tobacco or toxins may accumulate from within the body due to abnormal metabolism as in gout, uraemia, constipation, specific fevers or from the toxemias of pregnancy. Those from functional conditions comprise a large part of all cases. Under this classification we have those due to high and low blood pressure, persistent noises, sea sickness, menstruation, hysteria, and most common of all, migraine.

In addition to our routine history in these cases, special inquiry should be made regarding head injuries and lues, malaria, nephritis, dyspepsia and rheumatism should be ruled out as possible ethological factors. The location, nature and diurnal incidence of the pain should be noted and the patients habits and circumstances in life should be investigated.

In our physical examination we should note head injuries, tenderness on percussion of the skull as well as hypersensitivity over the supra and infraorbital nerves.

Also note if movements of the head produce pain. We should investigate the Central Nervous System very carefully. The ocular movements, pupillary reaction, corneal reflex, pharyngeal reflexes, knee reflexes, and Romberg's Sign should all be noted. The eye grounds should be examined for optic neuritis or albuminuric retinitis. The urine should be examined for albumin and the blood for lues and malaria.

Where there are symptoms referable to special sense organs, these should be investigated by those qualified to make such examinations. Refractive errors constitute a very common and well known cause while headaches resulting from nasal obstruction are probably often overlooked by the family physician. Acute sinusitis produces this symptom in almost every case while in the chronic form it occurs in about (50%) fifty per cent of the cases.

There are certain characteristics of headaches which, if kept in mind, may aid us in making a diagnosis of the cause. We will consider these in order as follows:

The location of the pain may be suggestive. Pain on one side of the head suggests migraine, sinusitis, middle ear disease, tooth ache, brain abscess or brain tumor; if in the back of the head or neck it suggests myalgia, insufficiency of the ocular muscles, cerebellar disease, meningitis or mastoiditis, while vertical pain suggests constipation or neurasthenia. In uraemia the pain is either frontal or occipital in most cases.

The nature of the pain may be suggestive. Throbbing headaches are generally due to increased blood pressure especially if increased on motion and relieved by rest in the recumbent position. In neuralgia the pain tends to occur in paroxysms. The time of day often gives helpful information; if worse at night with disturbed sleep it points to organic brain disease, when early in the morning it is generally due to poor ventilation, slight astigmatism, nasal obstruction or frontal sinusitis and finally those occurring in the evening are frequently due to mental over work, eye strain, or refractive errors.

There are certain associated symptoms which will aid us in our diagnosis. Vomiting suggests migraine, uraemia, arteriosclerosis or organic brain disease.

We should distinguish the headache which follows a few minutes use of the eyes in neurasthenic cases from the headaches which follow after several hours use of the eyes in refractive errors. When this symptom is present during the week and absent on Sunday we should consider eye strain as the most likely etiological factor.

In conclusion we find that headache is one of the most common symptoms we have in medicine and that it is very difficult to determine the causes in many cases. However with careful histories and physical examinations, keeping in mind the etiological factors and making a careful analysis of the special characteristics of each individual case we may materially reduce our percentage of failures.

1020 Candler Bldg.

### HEMATURIA.\*

F. C. Nesbit, M. D. Atlanta, Ga.

In considering the question of hematuria, it should be remembered that the day for the treatment of symptoms is past. In former times, before the intervention of the cystoscope and the radiogram, it was admissible to temporize with rest, ergot, ice bag and retained catheter; after constant recurrences, the underlying condition would finally be disclosed, but too late to save the life of the patient. Today we regard hematuria a warning of some serious condition in the uro-genital tract, with the probable single exception of hematuria noted in hemophiliacs.

Hematuria may owe its origin to lesions variously situated in the tractis urogenitalis: e, g; it may be either renal, ureteral, vesical, prostatic, or urethral.

Of the exciting factors, any one or more of the following may be responsible for the hematuria; which in character may be acute, subacute or chronic; in type it may be intermittent, remittent or continuous; in quantity

it may be scanty, moderate or copious. Among the etiological factors may be mentioned; neoplasms benign and malignant; internal and external trauma, various systemic and local diseases, foreign bodies, calculi and parasites, local congestive, ulcerative and infective lesions, the injection of certain drugs, aneurysm and varices.

Despite the multiplicity and perfection of modern diagnostic aids, as the cystoscope, ureteral catheterization, pyelography and roentgen-ray investigation, the exact cause and origin of urogenital hemorrhage can not always be accurately determined, but correctness in diagnosis may be assured in the majority of instances.

Hematuria in patients without injury requires diagnosis, not only as to cause, but also as to location of the bleeding. The blood as well as the urine must be most carefully examined, the finding of erythrocytes in the urine, eliminating the possibility of hemoglobinuria, the presence of renal epithelia and tube cast will attract attention to the kidney as the source of the hemorrhage. The cystoscope is of primary importance as a diagnostic measure; by this means vesical pathology may be seen, and calculi, papillomata and other not infrequent causes of hemorrhage may be determined. By the cystoscope one may also determine whether the blood is coming from one or both ureteral orifices. The ureteral catheter will also help in perfecting the diagnosis.

The most frequent causes of hemorrhage arising within the kidney are; trauma, calculus, tuberculosis and tumor. Calculus can usually be easily located with the X-ray. The treatment is surgical. Renal tuberculosis is more frequent than has here-to-fore been realized. It must be remembered that primary hematuria is very rare. Hemorrhage from a tuberculous kidney is usually intermittent. The finding of cheesy particles, tubercle bacilli, coupled with emaciation of the patient, with slight fever and tuberculosis in some other part of the body will make the diagnosis certain.

As to treatment the selection of procedure is easy, if only one kidney is involved, nephrectomy is indicated; where both kidneys are affected the worse one may be removed, even

\*-Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



with both kidneys involved, drainage may be practiced with decided advantage to the patient. Hypernephromata and carcinoma nearly always cause bleeding, which is the first alarming symptom. Other possible causes of hemorrhage are, increased blood pressure, hemophilia, acute hemorrhagic nephritis, the so-called "essential hematuria" and syphilis.

When a thorough examination fails to show the real cause of the hemorrhage, and the so-called "essential hematuria" diagnosis is made, the underlying pathology may be somewhat as follows. The source of the hemorrhage may be from the pelvis and from the tips of the pyramids, Hemorrhages are often present from the peripelvic tissues, often occurring just beneath the epithelium where for a considerable distance the epithelium has been elevated by a layer of extravasated blood. Blood often exudes from an inflammatory reaction in the tissues of the pelvis or about the blood vessels. The hemorrhages are often represented by extravasations of red blood cells from thin walled, dilated capillaries and veins. Rupture and hemorrhage from distention, or that rupture was due primarily to injury of the thin vascular walls from some circulating injurious agent.

When the source of blood is from the anterior urethra, the blood oozes or drips from the meatus independent of micturition. But when the blood is beyond the cut-off muscles, it is voided with the urine. In bleeding from either the prostrate or the prostatic urethra, the bladder urine may also be bloody, owing to the regurgitation into the bladder. By washing the bladder through a soft rubber catheter until it is clean and then filling it with water, if the fluid escaping throu the instrument is free from blood while the remainder voided is mixed with blood, the source of the hemorrhage is below the vesical sphincter. In bleeding from the kidney the blood is thoroughly mixed with the urine, and there is no separate quantity of blood as when the origin is further down the canal. In the three glass test the blood is thoroughly mixed throu out. Microscopically, in renal hematuria, we have blood cast and renal epithelia. After having proven the source of the bleeding is from the kidney, we next must

find the cause of the symptom. In stone, we have the symptom of colic, the aggravation of the bleeding after exertion or jarring, and the subsidence of it after relaxation and rest. In tumor of the kidney we have bleeding which appears and disappears without apparent cause; emaciation: a tumor in the loin; increasing pain; and symptoms of weight and a varicocele when on the left side.

In tuberculous kidney, a polyuria is very suggestive, when it is accompanied with renal hematuria, the bleeding recurs with out apparent cause, tubercle bacilli may some times be found in the sediment, or rather the sediment is injected into the peritoneal cavity of a guinea pig, and at the end of three or more weeks the pig autopsied and the examination made for tubercles.

In nephritis a large number of red blood cells always indicate the acuteness of the condition. Bleeding does occur in chronic interstitial nephritis with arterial changes. The presence of even slight uremic symptoms point to interstitial nephritis rather than to other causes of renal bleeding. As to which of the kidneys is bleeding is usually accomplished by watching the blood flow from the affected side by means of the cystoscope and the ureteral catheters.

The cause of hematuria may be determined after a careful study of the case, a thorough examination of the patient, and a complete analysis of the urine. If these precautions are taken, one will seldom err in discovering the pathological process which gives rise to the bleeding.

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**THE JOURNAL**

OF THE

**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia.

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**OCTOBER, 1921**

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****DO YOU BELIEVE IN THESE THINGS?**

Once a year the American Red Cross holds its Roll Call. This year it will be held from the 11th to the 24th of November. The Red Cross asks you to join the organization and give a dollar, as membership dues, to help further its work.

The first question you will ask yourself is Is the Red Cross doing the kind of work that I would be interested in supporting?

If you answer the following questions in the affirmative—even any single one of them—it is.

Do you believe in helping the disabled soldiers, putting them in touch with the government agencies that will give them proper care, taking care of their obligations so that they will feel free to go to the hos-

pital? The Red Cross helped more than a million and a half ex-service men last year.

Do you believe in helping the millions of destitute children in Eastern and Central Europe who are entirely dependent on charity? The Red Cross is shipping tons of clothing to Europe for these children, and has established ninety child welfare units at various points to look after their welfare. Doctors, nurses, and field representatives are in charge of these units.

Do you believe that instruction in First Aid and in Home Hygiene and Care of the Sick are good things? Last year 258,710 women and girls took the latter course under Red Cross instruction, and 104,496 students were enrolled in first aid classes.

Do you believe in the establishment of health centers? There are 260 of these in Red Cross chapters.

Do you believe that public health nursing will improve the general health of a community? The Red Cross employs 1,335 of these nurses, who last year examined half a million school children, made 1,144,692 visits to homes and nursed 499,800 patients.

Do you believe in disaster preparedness? In the last eighteen months the Red Cross has spent \$1,600,000 in helping the victims of 70 disasters, among which were the Pueblo flood and the famine in China.

Do you believe that people should be instructed in swimming, life-saving and the methods of artificial respiration?

There are 160 Red Cross Life Saving Corps in existence, with a membership of 10,941.

Do you believe that a nursing reserve should be maintained, from which the Army and Navy can draw in time of war? The Red Cross has 37,787 registered nurses on its rolls.

Do you believe in the ideal of service for which the Red Cross stands? Then join.

**TO DR. ISHAM HAMILTON GOSS  
A TRUE FRIEND***Athens, Ga., Friday Evening, August 26, 1921.*

In the passing of Dr. Isham Hamilton Goss, the city of Athens, the state of Georgia and the entire South, lose a gentleman of the old school, a physician and surgeon of natural

endowment and skill, and a citizen of unselfish service.

His life was a ministry of gentleness, the softness of his voice was but a faint token of the fullness of his emotional nature. His cherry, sunny manner dispelled despondency and brightened the lives of his associates and friends.

"Dr. I. H.," as he was familiarly known, was the ideal physician and surgeon, gentle in manner, sympathetic and loyal to his patients. He was born a physician. In the sick room his presence, to many, was all sufficient.

His nature was to serve rather than to be served. He prescribed for the poor as cheerfully and with the same promptness as he did for the rich. In fact, when others refused, he responded to the calls of the poor and the oppressed—even the negro. One said today if she were taken sick and did not have the money, she would have to lie there and die, for no other doctor would come like Dr. I. H. Goss.

The dream of his last years was to see a hospital erected and operated in Athens for the general good of this entire section of his native state. One of his greatest joys of his last few weeks was carrying a friend through the Athens General Hospital. He realized the need of a hospital in Athens many years ago, and with his limited means operated the Goss Sanitarium. He was one of the first physicians and surgeons to launch the movement for a public hospital in our city.

In the sphere of citizen, he was active, progressive and liberal with his time and substance. The civic development of his home city was one of his chief delights.

Well may it be said:

"He labored that he might keep alive the soul of Athens."

Dr. Goss had been my family physician for over sixteen years. He was my friend. One of his last calls was made in my home. Stricken as he was, he got up and went to minister to a member of my family. He gave his life in the service of his friends.

"Greater love hath no man than this, that a man lay down his life for his friends."

JOHN B. GAMBLE.

## DR. I. H. GOSS

WHEREAS Dr. I. H. Goss, our esteemed and beloved colleague in the medical profession has been for thirty years past one of our fellow members of the Clarke County Medical Society and at the time of his death, president, be it resolved that we tender to the members of his bereaved family our profound sympathy and that we hereby record the high esteem in which he was held by the members of the society who will sorely miss his friendship and genteel personality which endeared him to all whose good fortune it was to know him.

We further record that we have lost one of our ablest and most loyal members. The Secretary is instructed to send a copy of these resolutions to the family, daily newspapers and to spread them on the minutes of the Clarke County Medical Society,

M. F. MATTHEWS.

LINTON GIRDINE.

JOHN HUNNICUTT (Chairman.)

Committee Clarke Co. Med. Soc.

## NATIONAL BOARD OF MEDICAL EXAMINERS.

The National Board of Medical Examiners has just completed the first five years work and with it the trial period of its usefulness. The principle which this Board has stood for, namely, the establishment of a thorough test of fitness to practice medicine which might safely be accepted throughout this country and abroad, has been widely accepted. Since this Board was organized by Dr. W. L. Rodman, in 1915, eleven examinations have been held. These examinations have been conducted on the plan of holding at one sitting, a written, practical and clinical test for candidates with certain qualifications, namely, a four-year high-school course, two years of college work, including one year of Physics, Chemistry, and Biology, graduation from a Class A Medical School and one year's internship in an acceptable hospital. These examinations have covered all the subjects of the



medical school curriculum and have been conducted by members of the Board with members of the profession resident in the place of examination appointed to help them. Such examinations have been held in Washington, Philadelphia, New York City, Boston, Chicago, St. Louis, Rochester (Minnesota) and Minneapolis. During the war a combined examination was held at Fort Oglethorpe and Fort Riley. There have been 325 candidates examined, of whom 269 have passed and been granted certificates.

Starting with the endorsement of the Council on Medical Education of the American Medical Association, American Medical College Association and various sectional Medical Societies, the recognition of the Army, Navy and Public Health Service Medical Corps of the United States and certain State Boards of Medical Examiners, the certificate is now recognized also by twenty states as follows: Alabama, Arizona, Colorado, Delaware, Florida, Georgia, Idaho, Iowa, Kentucky, Maryland, Minnesota, Nebraska, New Hampshire, New Jersey, North Carolina, North Dakota, Pennsylvania, Rhode Island, Vermont and Virginia, the Conjoint Board of England, the Triple Qualification Board of Scotland, the American College of Surgeons and the Mayo Foundation of the University of Minnesota.

There has been such a wide-spread demand for an opportunity to secure this certificate by examination, that the Board has now adopted and will put into effect at once, the following plan: Part I, to consist of a written examination in the six fundamental medical sciences: Anatomy, including histology and embryology; Physiology: Physiological Chemistry; General Pathology; Bacteriology; Materia Medica and Pharmacology. Part II, to consist of a written examination in the four following subjects: Medicine, including pediatrics, neuropsychiatry, and therapeutics; Surgery, including applied anatomy, surgical pathology and surgical specialties; Obstetrics and Gynecology; Public Health, including hygiene and medical jurisprudence. Part III, to consist of a practical examination in each of the following four subjects; Clinical Medicine, including medical pathology, applied physiology, clinical chemistry, clinical microscopy and dermatology; Clinical Surgery, including applied anatomy, surgical

pathology, operative surgery, and the surgical specialties of the diseases of the eye, ear, nose and throat; Obstetrics and Gynecology; Public Health, including sanitary bacteriology and the communicable diseases.

Parts I and II will be conducted as written examinations in Class A Medical Schools and Part III will be entirely practical and clinical. In order to facilitate the carrying out of Part III, subsidiary boards will be appointed in the following cities, Boston, New York, Philadelphia, Minneapolis, Iowa City, San Francisco, Denver, New Orleans, Baltimore, Galveston, Cleveland, St. Louis, Chicago, Washington, D. C., and Nashville, and these boards will function under the direction of the National Board. The fee of \$25.00 for the first part, \$25.00 for the second part and \$50.00 for the third part will be charged. In order to help the Board the Carnegie Foundation has appropriated \$100,000.00 over a period of five years.

At the Annual Meeting held June 13th, of this year in Boston, the following officers were elected, M. W. Ireland, Surgeon General, President; J. S. Rodman, M. D., Secretary-Treasurer, E. S. Elwood, Managing Director.

Mr. Elwood will personally visit all Class A Schools during the college year to further explain the examination, etc., to those interested. Further information may be had from the Secretary-Treasurer, Medical Arts Building, Philadelphia.

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#### MEETING OF THE RAILWAY SURGEONS ASSOCIATION OF GEORGIA.

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Indian Springs, Ga., August 17, 1921.

Meeting called to order at 10:30 o'clock by First Vice-President Surgeon James T. Ross of Macon.

Rev. Adrain Warwick delivered the invocation.

Surgeon A. F. White, Flovilla, delivered the address of welcome in behalf of Indian Springs and Butts County. Response to address of welcome delivered by Surgeon J. G. Dean of Dawson.

"Focal Infection" was the title of an interesting paper read by Surgeon Maury M. Stapler, Macon, Ga. This paper was dis-

cussed by Surgeon Hugh M. Lokey, Atlanta; Surgeon Henry C. Wheelhel, Douglas; Surgeon Cleveland Thompson, Millen; Chief Surgeon J. R. Garner, Atlanta, and Surgeon M. M. Stapler in closing.

Surgeon J. W. Palmer of Ailey moved that the privileges of the floor be extended to visiting Surgeons. Seconded and carried.

"End Results in Some Surgical Cases" was the title of an important paper read by Surgeon Thomas Chason of Donalsonville. Paper discussed by Surgeon C. H. Richardson, Jr., Macon, Surgeon Thomas Chason, Donalsonville in closing.

Surgeon James T. Ross, Macon, reported a very interesting clinical case of Sarcoma of the Shoulder Joint.

"The Psychology of War" was the title of a paper of wide spread interest delivered by Invited Guest, Surgeon L. S. Oppenheimer, Tampa, Fla. This paper was discussed by Surgeon M. M. Stapler, Macon; Surgeon Henry C. Wheelhel, Douglas; Surgeon A. F. White, Flovilla; Surgeon L. S. Oppenheimer, Tampa, Fla., in closing.

Surgeon L. S. Oppenheimer of Tampa, Fla., was elected as an honorary member of this Association.

"Injuries in and About Joints" was the title of a paper read by Surgeon Chas. H. Richardson, Jr., Macon. This paper was a timely and appropriate one, and met with the approval of the Association. Discussed by Surgeon A. F. White, Flovilla; Surgeon Thos. H. Hancock, Atlanta; Surgeon Henry C. Wheelhel, Douglas; Surgeon Thomas Chason Donalsonville; Surgeon Chas. H. Richardson, Jr., Macon, in closing.

#### Afternoon Session—2:30 P. M.

Report of Secretary and Treasurer Surgeon J. W. Palmer, Ailey.

Surgeon Frank Eskridge of Atlanta delivered his Presidential Address which covered many important questions concerning Railroad Surgeons. This able address was discussed and complimentary remarks made by Chief Surgeon Jos. M. Burke of Petersburg, Va., and Chief Surgeon J. R. Garner, Atlanta, and Surgeon Henry C. Wheelhel, Douglas.

The following resolution was offered by

Chief Surgeon Jos. M. Burke and unanimously passed: Resolved, That the Association of Georgia Railway Surgeons heartily endorse the order and method established by the Railroad Administration during their administration and control of all the railroads, forbidding Railroad Surgeons of one railroad appearing as a witness in court against another railroad, therefore, we the members of Georgia Railroad Surgeons in convention assembled forbid any member of this Association from appearing as an expert witness against another railroad with which he is not regularly employed. Resolved, further, that the Chief Surgeons of all railroads, interstate or intrastate be advised of the passage of this resolution, so he may take such action desired advisable by him in the premises.

Chief Surgeon Jos. M. Burke, Petersburg, Va. delivered an address before the convention.

Chief Surgeon J. R. Garner, Atlanta, Ga., addressed the convention.

"The Practical Value of Co-operation in Diagnosis and Treatment" by Surgeon Allen H. Bunce, Atlanta, was the title of one of the most important papers read before the meeting. Paper discussed by Surgeon A. G. Fort, Atlanta; Chief Surgeon Jos. M. Burke, Petersburg, Va.; Surgeon J. W. Landham, Atlanta; Surgeon Thomas H. Hancock, Atlanta; Surgeon Allen H. Bunce in closing.

"Report of Some Interesting Cases" was presented to the Association by Chief Surgeon J. R. Garner, Atlanta. Paper discussed by Surgeon A. G. Fort.

#### Election of officers.

Surgeon Chas. H. Richardson, Jr., Macon, Ga., President.

Surgeon J. M. Smith, Valdosta, Ga., 1st Vice-President.

Surgeon J. R. Garner, Atlanta, Ga., 2d Vice-President.

Surgeon Cleveland Thompson, Millen, Ga., 3rd Vice-President.

#### Censors and Executive Committee.

Surgeon J. G. Dean, Dawson, Ga., Chm. Term expires 1922.

Surgeon A. G. Fort, Atlanta, Ga. Term

expires 1923.

Surgeon Enoch Callaway, LaGrange, Ga.  
Term expires 1924.

Surgeon J. M. Spence, Camilla, Ga. Term  
expires 1925.

Surgeon Henry C. Whelchel, Douglas, Ga.  
Term expires 1926.

Drs. J. W. Palmer and H. W. Terrell were  
elected representatives to the American Rail-  
way Executive Association, which meets in  
Chicago, March, 1922.

Macon, Ga., was selected as the next  
meeting place of the Association, to be held  
the third Wednesday in August, 1922.

J. W. PALMER,  
Secy. and Treas.

### **JONES CROSS ROADS MEDICAL MEETING.**

A very interesting and enthusiastic medical  
meeting was held at Jones Cross Roads August  
12, 1921. The following program was render-  
ed:

11:00 A. M. Prayer -- Rev. W. H. Henry.  
Address of Welcome -- Dr. M. K. Bailey.  
Presiding Officer ----- Dr. J. M. Poer.

#### **Papers.**

- 1 (a) Cancer of the Breast
- (b) Major Operations with  
Local anesthesia
- (c) Trifacial Neuralgias Dr. J. L. Campbell.
- 2 Endocrinology ----- Dr. R. P. Morrow.
- 3 Treatment of  
Fractures ----- Dr. Fred G. Hodgson.

#### **Luncheon.**

- 4 Bronchiectasis. .... Dr. J. G. Huck.
- 5 Some Surgical Condi-  
tions of the Left  
Hypochondriac  
Region. .... Dr. Hal C. Miller.
- 6 Toxaemia of Preg-  
nancy. .... Dr. Edwin C. Thomas
- 7 Operations for Rectal  
Stricture ----- Dr. W. E. Person.
- 8 The "Country  
Doctor" ----- Dr. Kinzer.
- 9 Practical Notes on  
Differential Diag-  
nosis of Malaria -- Dr. Allen H. Bunce.
- 10 The Conclusion of

Spinal Analgesia

Arrived at through

300 Cases ----- Dr. B. H. Wagon.

At noon a delightful barbecue was served by  
the ladies of this section. At the conclusion of  
the program all enjoyed a melon cutting.

### **THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER.**

The American Society for the Control of  
Cancer announces a seven days' campaign to  
be designated "Cancer Week" from October  
30th to November 5th. The purpose of the  
movement is to reach every available person  
in the United States and Canada with the vital  
message of Cancer Control. Committees have  
been established in all sections of these coun-  
tries and interesting lectures will be given by  
authoritative speakers.

### **GOLF. MEDICAL CHAMPIONSHIP OF THE SOUTH.**

To be held at Hot Springs, Arkansas, during  
the Southern Medical Association meeting in  
November.

A. Championship of the South—18 holes  
low medal score.

B. Handicap championship—All players  
are requested to obtain their handicap from  
home club and present it with par score for  
home course. Play for handicap champion-  
ship will be at the same time as the champion-  
ship round.

If it is possible, four-men teams from var-  
ious clubs or cities will decide the Southern  
team championship.

Entries are requested at earliest moment.

E. K. SMITH, Chairman,  
Dugan-Stuart Bldg.,  
Hot Springs, Ark.



### • Society of Anesthetists.

Plans are under way to organize a Southern Society of Anesthetists, at Hot Springs during the coming session of the Southern Medical Society there November 14-17.

This rapidly growing and now fully recognized specialty has had no Society devoted to its welfare and advancement in the South, while for some years such aggressive and wide-awake organizations as the Interstate Association of Anesthetists, the Amer. Ass'n. of Anesthetists, and others are developing the specialty in other sections of the country.

Those interested in such an association are requested to communicate with Dr. W. Hamilton Long, 1922 Deer Park Ave., Louisville, Ky. Organization Sec'y.

The sixth annual session of the American Congress on Internal Medicine will be held at Rochester, Minn., Mayo Foundation, week of February 20-25, 1922.

Dr. Grady E. Clay announces the removal of his office to The Doctors' Building, 436 Peachtree Street, Atlanta, Ga.

Dr. W. S. Elkin and Dr. J. R. Barfield announce the removal of their offices to Suite 24 The Doctors' Building (formerly the Marlborough Apartments) corner of Peachtree and Pine Streets, Atlanta, Georgia.

### BOOK REVIEWS.

**TRAUMATIC SURGERY.** By John J. Moorhead, M. D., F. A. C. S., Late Lt. Col., Med. Corps, American Expeditionary Forces; Professor of Surgery and Director of Department of Traumatic Surgery N. Y. Post Graduate Medical School and Hospital.

Second Edition, entirely reset. Octavo of 864 PAGES, with 619 Illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth \$9.00 NET.

This edition has undergone numerous changes, much of the text being rewritten. Many new drawings and a chapter dealing with the standardization of first aid methods as related to undustrial surgery has been added.

In the reset of the text and many of the new drawings the advance made during the world war in traumatic surgery as applied to undustrial surgery has been brought up to date.

The work is original in arrangement of illustrations and method of presentation, and of a style making it easy for reference and readable.

The author is to be commended for the strong emphasis placed on disinfection and conservation of wounds: Thus: in the chapter "Wounds and their complications" he writes: "No scrubbing or other irritative measures should be employed. Oil and grease can be removed by kerosene, benzine or gasoline." "The iodine should be made to penetrate every recess of the wound especially if the parts are much crushed, mutilated or stripped up." "Too much handling of wounds is inadvisable and probing is almost certain to prove disastrous."

A note of warning is sounded against the too long use of moist dressings.

This one volume contains all the information necessary to treat the slightest to the most extensive injuries and is a good reference to be on any physician's desk. Pruitt

### ANNOUNCEMENTS.

Dr. C. W. Roberts has moved his offices from the Candler Bldg. to 20 E. Linden Ave. opposite Davis-Fischer Sanatorium.

Dr. Ed. H. Greene announces the removal of his office to Suit 42, The Doctors' Building, formerly the Marlborough Apartments, corner of Peachtree and Pine Streets, Atlanta, Georgia.

Dr. Arch Elkin announces the removal of his offices from 102 Forrest Ave. to Suit 33, in The Doctors' Building, formerly Marlborough Apartments, 436 Peachtree Street, Atlanta, Ga.

Drs. T. C. and Hal. M. Davison announce the removal of their offices to Suit 35, The Doctors' Building, formerly the Marlborough Apartments, corner Peachtree and Pine Streets, Atlanta, Ga.

Dr. John Collier McRae announces opening of offices, Suit 34, Doctors' Building, 436 Peachtree Street.

## ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

By M. Ford Morris, M. D.

**Management of Leukemia.** Elliot (Medical Clinics of N. A., July, 1921) reports the results from treatment of a case of chronic myelogenous leukemia, which the writer had observed for a period of three years prior to death. The patient was relieved of symptoms for more than three years. Radium gave prompt, unmistakable, and marked relief, as indicated by a decrease in the white blood count and in the size of the spleen, by subjective relief from symptoms, and by an increase in weight and strength. The patient was able to take up her usual duties in apparently good health. Splenectomy gave relief from a previously uncomfortable tumor mass, but it had no other evident effect upon the course of the disease. Towards the close of this case, the radium applications became less effective, and were followed by depression and persistent headaches. Roentgenray treatment was then tried, with apparently the same qualitative and quantitative results as that produced by radium. The terminal event, acute leukemic manifestations with pneumonic infection, was that frequently observed in leukemia,—regardless of the method of treatment.

**A New Treatment of Diarrhoea in Tuberculosis.** Lassabliere (Paris med., May, 1921) tells of a very successful method of checking diarrhoea in tuberculosis, which he worked out and used on 142 cases. The treatment consists in placing the patient on a diet of sweetened condensed milk, diluted four to one with rice water. Of this mixture, the patient drinks one to two quarts a day,—and nothing else. Within 48 hours, the number of stools are much less. The treatment is kept up for four days, after which time, thin broth and puree are added to the diet.

**Chinosol in Typhoid Fever.** Heuser (Deutsch. med. Woch., April 28, 1921) states that chinosol has been used in the treatment of 457 cases of typhoid fever without a single death. The method of treatment is as follows: the patient must lie quietly in bed, and par-

take of a diet consisting entirely of fruit juices, preferably orange juice and tea, for the first two days. Baths and packs are not used, but the patient is washed twice daily. The dose of chinosol is  $7\frac{1}{2}$  grains, in 200 c. c. of sugar water, every half hour, and one or two enteroclyses of one liter of water containing 15 grains of chinosol. Castor oil and calomel are given if, at the end of 24 hours, the temperature has not fallen or if the pulse has increased in frequency. Usually on the third day of treatment, the temperature falls by lysis. Heuser treats meteorism and abdominal pains by the application of an ice bag; the same treatment he also uses for typhoid meningitis and intestinal hemorrhage.

**Intravenous Injections of Highly Concentrated Grape Sugar Solutions.**—Korbisch (Deutsch. med. Woch., March 24, 1921) states that he has used, in cases of cardiac decompensation, daily intravenous injections of 20 c. c. of a 50 per cent grape sugar solution. This highly concentrated solution not only remains sterile but also affords a simple and successful means of supplying the myocardium with quickly available nutritive material. (Clinicians in other countries have reported similar results with the use of this nutritional therapy for a failing myocardium.—Abstractor.)

**Syphilis of the Heart.**—Brooks (Am. Jour. Syphilis, 1921, v, Vo. 2, p. 217) reminds us that syphilitic involvement of the heart is not so very infrequent, and, that any form or stage of syphilis, excepting chancre, may be found in the heart. The lesions may involve the pericardium, the myocardium, the endocardium, and the conus arteriosus. The most frequent lesions, located for the greater part in the myocardium, apparently originate or progress about the terminals of the coronary system. The symptoms and signs of syphilis of the heart are simply those resulting from the particular lesion present and often develop few or no clinical characteristics aside from their association with the history of infection, the Wassermann reaction, and the relief of symptoms and signs under specific treatment.

**Prognosis in Nephritis.** Webster (L. I. Med. Jour., June, 1921) calls attention to the well-established facts that the different tests



of kidney function, such as the estimation of the blood ure, uric acid, and creatinine; the phenolsulphonthalein test, the so-called two-hour test, etc., are by far the best methods to determine the prognosis of a case of nephritis.

**Treatment of Pulmonary Gangrene by Antigangrene Serum.**—In the edition of the Bull. et mem. Soc. med. d. hop. de Paris, for May 12, 1921, are two articles on the treatment of gangrene of the lungs by means of anti-gangrene serum. Both writers agree that this serum is best given intramuscularly or subcutaneously, that the best results are accomplished when the serum is begun early in the course of the disease, and that this serum is of undoubted value in the treatment of pulmonary gangrene.

**The Reaction of Fixation in Pulmonary Tuberculosis and in Surgical Tuberculosis by Means of the Antigen of Besredka.** Fried and Moser (Presse med., June 1, 1921) conclude, from their study of the seriodiagnosis of tuberculosis, that; (1) the reaction of fixation in tuberculosis by means of the antigen of Besredka is a sure method of early diagnosis; (2) a positive reaction permits the assumption, with rare exceptions, of the presence of active tuberculosis; (3) a negative reaction does not definitely exclude a tuberculous process; and (4) the fixation reaction by means of the Besredka antigen merits its being placed in the front rank of laboratory methods used in the diagnosis of tuberculosis.

More and more, disease is being cured before it begins, says the U. S. Public Health Service. Typhus, which drove Napoleon from Moscow and destroyed his army, is now being wiped out by soap and hot water. Smallpox, once classed with measles as a deadly but inevitable child's disease, is being ended with tubes of vaccine. Lead poisoning in potteries is being markedly checked by the workmen eating outside their workrooms and washing the lead glaze off their hands before eating at all. Children by thousands are being saved from slow starvation by attention to their teeth which enables them to eat and to digest their food. Wherever modern public health work is in progress, lives are longer and safer than they were.

Infancy and childhood are the danger periods for tuberculosis, says the U. S. Public

Health Service. To protect your child, pasteurize the milk or use certified milk; protect infants and young children from contact with the sick; and keep the growing child strong and well by seeing that it drinks milk, eats vegetables, avoids excessive fatigue, and gets enough sleep.

Personal responsibility for the transmission of venereal disease has been upheld by both civil and criminal courts, says the U. S. Public Health Service. In Oklahoma a man has been sentenced to five years in the penitentiary for infecting a girl with syphilis. In Nebraska the court upheld a doctor who warned a hotel keeper that one of his patients, a guest at the hotel, had syphilis and had refused treatment and was consequently a menace to the public health. In North Carolina a woman has been awarded \$10,000 damages against her husband for a similar infection, and the Supreme court upheld the judgment.

#### GENERAL PATHOLOGY.

An introduction to the study of medicine. Being a discussion of the Development and Nature of Processes of Disease. By Horst Oertel, Strathcona Professor of Pathology and Director of the Pathological Museum and Laboratories of McGill University and of the Royal Victoria Hospital, Montreal, Canada. Cloth. Pp. 357, with Illustrations. Price \$5.00 net. New York: Paul B. Hoeber.

It is not overpraise to state that this work of Oertel's is one of the outstanding books of the day. Written in a style that is commendable and in the scientific spirit without which every book on the subject of pathology falls short of being in the first rank, it gives the reader a thorough interpretation of all the problems in pathology, some of which no doubt have perplexed him on account of his limited knowledge, due to the fact that he has never been fortunate enough to acquire an illuminating book on the subject.

The subject of general pathology has too long been the *bête noire* among physicians in general, even among those who lay claim to being well versed in all subjects of medicine. The reason for this is that most physicians—the majority—have for some unexplainable reason regarded the study of general pathology as too abstruse and too wearisome a subject to cope with, and have relegated, on account of this attitude, its interpretation to those men in the medical profession who are specialists in pathology.

While there are good reasons for this attitude, as regards a large number of books on general pathology, in the case of Oertel's work a front of this nature would be a detriment to the busy practitioner, for



reasons which are too obvious to state here in their entirety. But there are three reasons which should be mentioned here why Oertel's work commends itself to the thousands of physicians throughout the country, and they are as follows: Pathological processes are regarded as expressions of physico-chemical laws; the great educational value which accrues from a study of the historic development of ideas and hence an understanding of current ideas; the visualization of possible pathological occurrences based on the anatomical conceptions of the subject.

Any book on general pathology that has reasons such as the three mentioned above, has an asset which should bespeak a wide circle of readers; and when added to these are a simplicity of presentation and clarity of thought that are evidenced on every page, it cannot be gainsaid, in all fairness to the author, that at last the American medical profession has a book at hand that is of so unusual a nature that it must be considered a hall-mark in medicine.

### DEATHS.

Dr. E. G. Jones of Atlanta, died October 6th, 1921. Age 48.



### SPECIAL TRAIN TO HOT SPRINGS, ARK.

Account Meeting of

### SOUTHERN MEDICAL ASSOCIATION

Via

### SEABOARD AIR LINE RAILWAY.

Lv Atlanta,	S. A. L. Ry.	5:00 PM, Sat. Nov. 12th.
Ar Birmingham,	S. A. L. Ry.	10:40 PM, Sat. Nov. 12th.
Lv Birmingham,	Frisco R. R.	11:00 PM, Sat. Nov. 12th.
Ar Memphis,	Frisco R. R.	7:35 AM, Sun. Nov. 13th.
Lv Memphis,	Mo. Pac. R. R.	10:00 AM, Sun. Nov. 13th.
Ar Hot Springs,	Mo. Pac. R. R.	3:45 PM, Sun. Nov. 13th.

Train will consist of All Steel Pullman Drawing room, Compartment and Section Sleeping cars, Dining and Observation Cars, and will be consolidated at Memphis with the "President's Special" from Tennessee, which is being arranged for by Dr. J. L. Crook, President of the Southern Medical Association.

**SPECIAL REDUCED RATES** of one and one half fare for round trip have been authorized, tickets to be sold November 10th to 16th, final return limit Nov. 21st. Be sure to secure identification certificate from the office of the Southern Medical Association Birmingham, to present to ticket agent when purchasing ticket.

All Physicians and their families from the Southeastern States are cordially invited by the Medical Association of Georgia to join them on this train, and are requested to make their Pullman reservations early. For further information and Pullman Reservations address Dr. Allen H. Bunce, Sec'y., Medical Association of Georgia, Healy Bldg., Atlanta, Ga., or the undersigned.

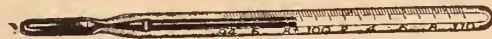
\* Fred Geissler,  
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# Diagnostic Laboratory

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Volume X

ATLANTA, GA., NOVEMBER, 1921

No. 18

### ORIGINAL ARTICLES

#### CORRELATION OF THE ENDOCRINES\*

E. C. Thrash, M. D., Atlanta, Ga.

Endocrines are so correlated and inter-related that there can be no normal function of any one of them without the activities of the others. The three cardinal purposes in life's processes are growth, metabolism and reproduction. These are carried on by the harmonic interactivities of the internal secretions. Much study has been put upon the latter in recent years and much has been learned, yet this slight knowledge which we have obtained in reference to the phenomena of internal secretions has acted like wine upon our reasoning faculties. This exceeding stimulation will cause us to draw many an illogical conclusion, but time, study and experience will, in a great measure, eliminate the false and enable us to approach more and more nearly to the true. We have learned something of the functions of many of the internal secretions. Included in these are the anterior and posterior lobes of the pituitary, the thyroid, parathyroid, thymus, cortical and medullary portion of the supra-renal, the follicular structure, stroma and corpus luteum of the ovaries, the cells of Leidig of the testes, islands of Langerhans of the pancreas, etc.

The object of this paper is not simply to outline in the absence or enfeebling of activities of the glands of internal secretion, how to give the substance of similar glands obtained from the sheep and restore the activities of the former more nearly to normal, but to show that other endocrines have a direct bearing upon the lack of activities of the glands to which our attention has been

called. Also to show what bearing this inter-relation has upon hyper, hypo, or normal activities of any one or any group of glands of internal secretion.

Investigations have shown that the hypophysis is not one gland but two, the anterior lobe being of neural origin and the posterior of epithelial. The anterior lobe bears directly upon the skeletal growth, mentality and masculine attributes. The posterior lobe bears directly upon metabolism, non-striated muscle structures, and feminine attributes and functions. The anterior lobe has as its chief hormone the internal secretions of the testes which secretion is chiefly from the cells of Leidig, and the cortical portion of the supra-renals. The posterior lobe has as its chief hormones the internal secretion of the ovaries including both follicular and stroma ferments. Glands have not only hormones but also chalones. The corpus luteum and placenta secretions have a chalone or inhibitory effect upon the posterior lobe. The chalone effect is weakened in pregnancy and no doubt the mammary secretions play an important role in this latter process. To illustrate, when the corpus luteum ceases to wield its influence over the placenta at the time for the terminus of pregnancy and the mammary having reached the height of its development, cell degeneration and milk secretion bring to bear inhibitory effects upon the placenta, thereby causing a maturity and degeneration of its cells. This causes a truce in the way of activities of the placenta toward the hypophysis, the latter organ becoming explosively active and precipitating labor. The posterior lobe probably plays an important part in reproduction by stimulating hyperplasia of the uterine musculature.

The influence of the ovarian secretions is to stimulate the action of the posterior lobe,

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



causing development of the female form, distribution of fat, distribution of hair and other feminine characteristics. The cells of Leydig of the testes stimulate anterior lobe activities thereby causing male distribution of hair, male development of bony structures all of which make the vast difference in physical appearance and development between the male and female.

Castration of the two sexes have shown conclusively that the internal secretions of the reproductive organs determine sex characteristics and stimulate the development of the distinct markings in each. This stimulation is not direct, but the cells of Leydig elaborate a hormone for the anterior pituitary and cortex of the adrenals, and the ovaries elaborate one for the posterior lobe and medullary portion of the adrenals. It is quite probable that homosexuality is the result of cell rests of Leydig having been left in the ovary or the cell rests of ovarian stroma having been left in the testicle. It is difficult to determine how sex perversions could occur except upon this basis.

The supra-renal gland has two distinct moieties both of which are closely related to the various other glands which have already been discussed. The cortical portion might be termed the male acting moiety and the medullary portion the female. The cortical portion bears directly upon the masculine attributes including the distribution of hair bony structure, sexual development and various other masculine characteristics, while the medullary portion bears upon the metabolism, emotions, blood circulation, etc. From adrenalin we have learned much of the functions of the medullary portion in its action upon the heart and vascular system. In these areas where the blood is not needed for muscular activity the arterioles are contracted and less blood supplied while the arterioles of the muscular structures are dilated and blood is poured into these areas to improve functionation. In the fatty structures abdominal viscera, etc., the vascular system is acted upon by constrictor nerves causing less blood to be supplied to these areas so that muscle structures and lungs can get more blood. In muscular activities the heart must act with great force, so the chro-

mafins stimulate this organ; also the musculature of the lungs is relaxed that a greater quantity of air can come into contact with the blood. In this way more blood richer in oxygen is carried to muscle areas during exertion. This is why adrenalin relieves exhaustion. Hyperchromafinism or an increase of the medullary function will produce phobias, night terrors, etc., in children, and produce a tendency to "run away and fight another day" as it were in adults. The cortical portion develops masculine traits so that the hyperdevelopment of the two would produce a more even balance causing aggressiveness, bravery, etc. There is harmonic action between the chromaffins and the thyroid, this is shown by the administration of adrenalin which produces marked excitability, increase of blood pressure, delirium cordis etc., when one is suffering from hyperthyroidism.

There probably has been more study of the thyroid gland than any other of the internal secretory glands and it is better understood. The thyroid gland, no doubt, plays a more important role with the female than the male. When we take into consideration, however, the instability of female life processes as compared to that of the male, we can readily understand why she suffers so much more from an endocrine imbalance. With the male the endocrines must aid in the production of growth and metabolism until the reproduction period is reached at which time there may develop an endocrine imbalance. After this process there is but little in the physiological processes to provoke an endocrine imbalance until the period of senility. Then certain atrophic changes may take place which may again provoke an imbalance, due largely to atrophy being more pronounced in some of these glands than others. The female may not only suffer from the imbalance developing at puberty, but readjustments must take place every twenty-eight days to make preparations for ovulation and menstruation. This requires complex chalone and harmonic action of the endocrines. Not only this, but when an ovum is fertilized and gestation is begun, factors directly opposing those aiding in menstruation must be

instituted. Corpus luteum must inhibit follicular activity and ovulation. Foetal secretion must stimulate placental growth, placental secretion must inhibit posterior pituitary, mammary or other secretions must produce atrophic changes in the placental structure which changes must produce explosive activities of the pituitary to precipitate labor. This constant derangement must naturally put the endocrines upon such enormous strain that it would be expected that an imbalance would develop. The surprise is not that women are more inclined to neuroses than men, but that these disturbances are not greater than they really are.

Hyperthyroidism occurs about eight times as often in women as in men and it usually develops after pregnancy. The thyroid is preexcellence the gland of metabolism which is especially needed in vigorous development. In view of the fact that it requires more metabolism for two individuals than one necessitates an increased activity of the thyroid during pregnancy. It is said that corpus luteum has special hormonal action upon the thyroid. The stroma and follicles of the ovary no doubt act in a hormonal way themselves in stimulating thyroid activity from the fact that girls show enlarged thyroids just about the time they begin to menstruate. Some hold, however, that it is the 28 day corpus luteum which stimulates this activity and not the other structures of the ovary. This probably is true since arrested monthly degeneration and cystic changes of this structure often produces menstrual disturbances. Delayed absorption of the monthly corpus luteum causing it to be carried over into another month may interfere not only with the thyroid activity but also proper menstruation. The fact is established that the thyroid has a chalone effect upon the pancreas. That is, an excessive thyroid condition will inhibit pancreatic activity and vice versa. It has not been proved that the thyroid has a hormonal effect upon the posterior pituitary, but certainly both these glands have a direct bearing upon metabolism. The lessening of the secretion of either or both will increase the tolerance for sugar and cause an increase of blood sugar fats

and glycogen, whereas hyperconditions of either or both will cause the reverse. In other words, hyperthyroidism or hyperpituitarism will increase sugar metabolism tending to throw carbohydrates into the blood for the purpose of being consumed and inhibiting the storing up of the product in the way of fat or glycogen. The suprarenal acts as a hormone with these glands and an increase of this has an inhibitory effect upon the storing of carbohydrates. Large doses of adrenalin will free the liver of glycogen quite rapidly. An overactivity of either or all of these glands tend to increase metabolism and inhibit the storing of sugar, stimulate and accelerate the heart and produce emaciation.

The parathyroid and thymus in an essay of this kind should not be neglected. These glands in a measure act as hormones to each other. They both stimulate calcium metabolism. Parathyroid is supposed to have inhibitory effect upon the thyroid in the process of metabolism and poise. Lack or absence of this gland will produce in the young tetany; and epilepsy and paralysis agitans in the old. Thymus spends its force early in life and inhabits the reproductive organs. When it fails to become absorbed at the proper time the reproductive organs are retarded in their development and this retardation has a tendency to react upon the anterior pituitary and the adrenal cortex retarding and delaying the growth and development.

In conclusion I shall state that female characteristics are developed in a measure by ovarian substance stimulating and activating the medullary portion the adrenals, the posterior pituitary, and the thyroid. Male characteristics and attributes are developed by the cells of Leydig stimulating and activating the cortical portion of the suprarenals and the anterior pituitary lobe. Probably the pineal gland acts as inhibitor upon the development of the reproductive organs.

While it may be difficult to diagnose endocrine deficiencies and excesses, yet if a diagnosis can be made there is much that can be done in restoring the individual to a



more normal state. The treatment of endocrine deficiencies is simple compared to that of endocrine excesses, the former requiring the administration of animal gland substance to supplement the deficiency, while the medical treatment of the excesses must depend largely upon the administration of those gland substances which have an inhibitory effect upon the activity of the hyperactive glands.

### Discussion \*

DR. WILLIAM N. ADKINS, Atlanta: The literature on the endocrines is abundant but as it pertains to children, is conspicuous by its absence. Dr. Poer is right when he says that the greatest good we can do in the study of these cases is in childhood. I have searched all around and tried to find some literature that pertains to endocrinology from a pediatric standpoint. It cannot be found. All of the detail men from the publishing houses say there is no such thing in print.

I belong to the American Society for the Study of Internal Secretions which gets out a magazine in which everything is abstracted that pertains to endocrinology, and it is hardly ever that we see anything at all regarding children from a standpoint of the endocrines.

I do not think the physical markings we are taught by the authorities on which to base some of our diagnoses of disturbances of the internal secretions, will apply to children. So I am waiting anxiously for some authority to give some details as to the diagnoses of these conditions.

Bandler, a gynecologist, has written a beautiful book on this subject, which reads like a novel. It is just off the press, and he states himself that the greatest future for endocrinology is in children.

Dr. Poer mentioned using mammary gland extract and placenta to increase the mother's supply of milk. I have been using placental extract for a good while and have never had a failure up to the age of six months in the child, when the mother's milk was failing.

Harrower, of California, recommends mammary and placental extract. I have only used the placental extract. Dr. Elkin has given us beautiful illustrations of his cases. I want to ask him one or two questions. If I understood him correctly, he stated there was no treatment for hyperthyroidism medically. Then further on he stated differently that in treating women for ovarian disturbance he cleaned up their hyperthyroidism. It is a well known fact that those women who have been castrated and have normal thyroids at the time of castration get thyroid disturbances on account of the close correlation between the thyroid and ovaries, and it is further a well known fact that from eight to ten times as many women have thyroid

\* Discussion on papers of Dr. Thrash and Dr. Elkin. Dr. Elkin's paper will appear later. Ed.

disturbances as men on account of the correlation between the gonads of the woman and the thyroid. Bandler states that it is decidedly more a female disturbance than a male; that the cortical portion of the adrenals is the male part of the gland the anterior lobe of the pituitary the same.

There seems to be a marked diversity of opinion as to the best method of giving endocrine extracts. Some authorities get equally as good results by giving these extracts by the mouth, while others do not. I have given total posterior pituitary extract by mouth and have never gotten any good results. If pituitrin is sealed up in a sterile ampule it will keep for an indefinite length of time. Burroughs & Wellcome say that it will not.

I would like to ask Dr. Elkin the most reliable way of administering the endocrine extracts.

DR. FRED G. HODGSON, Atlanta: I do not want to unduly prolong this discussion, but I simply want to add my experience from the standpoint of the development of the bones. I have had three cases of coxa vara which are the exact counterpart of the pictures exhibited, showing that a lack of endocrines may cause a lack of strength in the neck of the femur, and children, especially boys, in this adolescent stage very often get a bending of the bone of the neck of the femur due to hypopituitarism.

There are many other bone cases which show disturbances of the endocrines, and I think further study along this line will give us some valuable information.

DR. W. A. MULHERIN, Augusta: I am sorry that the papers on Endocrines In Children, one by Dr. Boynton, and the other by Dr. Clarke, were not read. The pediatric phase of this subject has been brought out by one of the discussers. It is well to remember, from the past history of medicine, that there has always existed a tendency to swing the pendulum too far, whenever we have been able to obtain some new truth along medical lines. I am inclined to think this to be the case with our present knowledge of endocrinology today. We know a few definite facts about the endocrines, but there is a lot we do not know. It is surprising how bold some claims are along this line, when we positively know that no true scientific basis exists for these claims. I believe every physician recognizes the great promise, and the fertility of the field, along the line of the endocrines. But I think a note of warning for conservatism should be sounded, in order to make men more guarded in their claims.

As regards the wonderful effect of extracts, of mammary glands, placenta, and sometimes thyroid, as a lactagogue, when given to nursing mothers, will say that the consensus of opinion, by those who have used these extracts, is that they are disappointing, unless the mother's mental conviction is brought into play. I have had mothers say to me: "Doctor, if you will let me drink plenty of tea, I will be able to give my baby more milk than it can possibly hold." I have always encouraged them to go right ahead and



drink plenty of tea, and encouraged them in the belief that it would produce plenty of milk. The psychic effect was truly wonderful, for very promptly the breasts would secrete a plentiful supply of milk. When we consider the contents of tea—tannic acid, which is an astringent—and then the active principle, it is hard to reason out why it should produce an extra flow of milk, if it is not entirely due to the effect of the mind over the mammary glands. May this not be the case with the endocrine extracts? I am inclined to think that the good effects sometimes seen are more mental, than endocrine, results.

Again, it has been mentioned that nothing has been said, in the leading textbooks on Pediatrics, about the endocrines in infancy and early childhood. It is true that textbooks on this subject do not assert as facts experimental work that is going on today along endocrinology. However, they have a good deal to say on cretinism, due to an absence of thyroid gland; thymic asthma, due to enlarged thymus gland; hypopituitarism, manifested chiefly by an indifference to nurse the breast. Again, in our textbooks will be found excellent articles on hypothyroidism; Graves' disease; hyperthyroidism; status lymphaticus. . . .

. . . Mention is not made of the other ductless glands, because not enough scientific data exists today to warrant their appearance in a textbook.

Also, it was mentioned in the discussions that if these endocrine disturbances were recognized in very early infancy, the results would be more brilliant. Here we have to remember that the recognition of idiocy, imbecility, or any feeble minded condition, except Mongolian idiocy, is very difficult to detect, before three to six months. Detection of these troubles is based upon the lack of normal co-ordination between the nerves coming from the brain, and the muscles of the body. It is expected that a baby in its normal physical development, should hold its head up at three months; to reach for an object at about four months; to hold the object in its hand at about five or six months; to sit up in the mother's lap, unsupported, at about seven to eight months; to stand up beside a chair, at about ten months; to walk, holding on to the mother's or nurse's hand, at about twelve months; to step out by itself, and walk alone, at fourteen to fifteen months; to say mamma or papa, at one year, and to form short sentences after two years. By checking a child along this normal natural development, we are able to pick out trouble. If there be no reason for muscular weakness, then we blame the brain or nerves for it.

I am inclined to believe that it would be very hard to pick out dysfunction of the endocrines before baby reaches the age of three or six months of age, with our present knowledge and facilities.

DR. H. R. DONALDSON, Atlanta: In our study of endocrines the most natural thing to consider is causation, why should we have endocrine deficiencies? That brings up possibly a number of things that might be discussed at great length, going back,

not infrequently to the Biblical third and fourth generation. We often give enormous doses of endocrines without any appreciable effect, because the product is inert. It would be well, particularly, with children to give some drug which stimulates endocrine activity and thereby, make their own gland supply the deficiency. Heading the list of these drugs is the familiar old Iodide of Potash, and I imagine, the foregoing explains some of the wonderful results we get from this drug—just as in the use of calomel, it has stood the test of time, not because it is such a wonderful liver stimulant, for it is not, but because it is the most powerful intestinal antiseptic that we have.

DR. GEORGE L. ECHOLS, Milledgeville: I want to speak of the large number of cases of this sort we have in the State Sanitarium at Milledgeville, and in connection therewith lay emphasis on the mental side of the subject that Dr. Elkin especially has brought out in his paper. If you should go down to our place we can show any number of cases that give the physical pictures Dr. Elkin has shown. The thing of interest to me is the mental side. We have in these cases an arrested development.

I am absolutely amazed at the recent work of Dr. Tredgold, an Englishman, who has gotten out the latest book bearing on this subject. He says that some of these cases can be diagnosed as early as the third month; that they should all be diagnosed and treated before they are a year old, if we will expect to get cures. So far as the mental side is concerned, we should not wait until the conditions occur that Dr. Elkin has described and shown. Do not wait until you get such specimens of humanity as we have in the asylum, but go after these cases at the age of six months or younger, get them as early as you can and you will get your cures according to Dr. Tredgold.

DR. E. C. THRASH, Atlanta: (closing on his part): I was glad the mental phase of defective endocrinism has been brought out. That is probably quite as important as defective physical development. It is especially true in children, and long before we are able to detect any difference in physical development we will be able to see lagging mental development.

A short time ago I saw a child (I will not go into details regarding the symptoms) who had symptoms of tetany. The child's lack of mentality was quite marked. I put this child on the gonads, parathyroid, and large doses of calcium lactate. This child had a deficiency in the parathyroid gland, and probably lack of gonadic substance. The child improved markedly. Its mental aspect became much better. The doctor, who lives out of the city, informs me the child is doing well.

I could mention other instances, but there are a number of things I want to say something about, and one is the polypharmacy in prescribing for these cases. We must decide that there is a lack of proper

endocrine secretions on the part of some glands, and that may be increased or is lacking only in one respect, and we can give whatever we feel is indicated in the particular case.

The thing I want to impress upon you especially is a matter I have observed from watching my cases of women past forty. They much more frequently than men develop imbalance of the endocrines which shows itself in a lack of thyroid, a lack of pituitary substance, a lack of ovarian substance. We would give these three instances. We would not give the Burroughs & Wellcome preparation of mixed glands, but would select the substance best indicated. The things that characterize these disturbances in women of that age are the hot flushes with which we are all familiar, the hard feeling of fat, the scant eyebrows, and a thick, heavy expression. The thing that you will notice particularly is a thickening of the skin, a hard feeling of the fat on the anterior aspect of the arm. If you pick up the fat in this way (indicating), if you have lack of thyroid and lack of posterior lobe, you will get that thickening of the skin with beginning myxedema. We do not want to get marked myxedema before we begin treating these cases. If we look out, we will see the handwriting on the wall. In many of our patients we will see the signals that will suggest proper treatment.

When women that come to you with nervous disturbances, whose menses have stopped early, who are not feeling very well, who have burning of the skin, who have rheumatoid disturbances over the body, in the knees and ankles, feel the flesh on the anterior aspect of the thigh and arm and you will usually find it hard. When you press it it will become nodular. If you put them on the three gland extracts you will get improvement. I thought at first the thyroids would clear up these conditions, but the thyroid will not do it alone as well as the three glands. The fat will soften up in two weeks under this treatment, and the tissue, when it is pressed, is that of a woman of thirty to forty years of age. You can take quite a number of men in this room and find they have thickening of the skin and a nodular appearance when it is pressed upon.

The U. S. Public Health Service calls attention to the fact that only twenty-three States have efficient birth registration laws, eighteen have imperfect ones; and five have none at all. Inability to prove age may cause all sorts of legal troubles later in life—in proving citizenship, in voting and in inheriting, for instance. Don't forget to make sure that the new arrival in your home has been registered.

## THE ENUCLEATION OF THE EYEBALL AND ITS SUBSTITUTE OPERATION.\*

F. Phinizy Calhoun, M. D., Atlanta, Ga.

It is probably the opinion of the medical man not interested in eye surgery, that any discussion upon seemingly so simple an operation as the removal of an eye would be superfluous, as ample time should have elapsed for the establishment of definite principles and a perfect technique. Unfortunately such is not the case, for we find to day a difference of opinion among ophthalmic surgeons as to the best procedure or preference of operation. Indeed at a recent meeting of the American College of Surgeons, the only topic of formal discussion by ophthalmologists was the above named title.

The occasion of the renewal of this discussion of this well known and frequent operation, is probably due to the unusually large number of enucleations performed in all the armies of our recent war. Many of these operations in our own army were done under unusual surroundings, as emergency operations in advanced dressing stations, often by a general surgeon or by men inexperienced in eye surgery, and it is not surprising that the ophthalmologist in the General Hospitals at home saw the end results of some extremely poor surgery. This is not intended as a criticism but as a statement of facts.

An eye is usually removed by enucleation or by one of its substitutes, for (1) painful eyes from certain diseases, (2) an injured or infected eye, which might cause the loss of its fellow through sympathetic inflammation, or (3) scarred, shrunken or deformed eyes for cosmetic results. While it should be our chief purpose to safeguard the remaining eye, one should not lose sight of the fact that the safest operation and the one that will give the best cosmetic result should be our choice.

The end result of a successful enucleation or its substitute should show a cul-de-sac free from adhesions or irritation, and which will hold without effort an artificial eye, similar

\* Read before the Medical Association of Georgia, Rome, Ga., May 4, 5, and 6, 1921.



in color and size to its fellow eye. The artificial eye should have some motion, and there should be no sinking or depression of the orbit above the upper lid. This is the ideal result obtained in the majority of the cases of the self styled "modern operation."

The usual steps in the operation of enucleation of the eye, such as the peri-corneal dissection of the conjunctiva, the entering of the Tenons capsule, the cutting of the recti muscles, and the delivery of the globe after severing the optic nerve are known to most medical men. Such a procedure is the most common even to day and should be condemned for the reason that the muscles and Tenons capsule usually retract and atrophy in the scar tissue later formed, leaving no stump or support for a prosthesis. Undue roughness to the orbital contents by instrumentation or sponging, will cause fat absorption to some extent, besides the injury to the ciliary ganglion situated just posterior to the globe will destroy its sympathetic branch supplying Mullers muscle in the upper lid; and the result is a retraction of the tarso-orbital fascia and a drooping of the upper lid causing the unsightly depression formed above the upper lid in many cases.

To avoid these unsightly post-operative results, a pulling together with a purse-string suture Tenons capsule and the severed ends of the muscles, will greatly lessen this complication. Gentleness of touch in doing an enucleation, in the use of the strabismus hook, the introduction of the scissors in severing the nerve, and particularly in sponging the orbit for the control of the hemorrhage is of greater value than is commonly believed.

If after a simple enucleation one finds an unduly large cavity, for example such as formed by a large posterior scleral staphyloma, it is almost the moral duty of the surgeon, then to implant fat or a substitute in the cavity to prevent the deformity which he knows will later form.

As to substitutes for enucleation, the most common is an evisceration of the globe which is usually performed in panophthalmitis. unless the orbital infection has been unduly severe which often causes some absorption of the orbital fascia, the end results are extremely satisfactory, for the atrophied scleral shell

binds together the insertion of the lateral muscles. Indeed I have recently seen excellent results of this same operation (evisceration) performed as a substitute for enucleation in cases where enucleation is ordinarily performed. The modifications in technique were a severance of the optic and posterior ciliary nerves after a large circular incision was made around the disc and the sclera removed, and whipping together the conjunctival edges.

The war has revived many old surgical prededures. In Ophthalmology especially much has been said and done in fat implantation, or glass or gold ball inserts into the orbit. Paraffine globes, dental stent, cartilage and bone have been used with varying results, and I have used successfully in 6 cases the implantation of fat into the scleral ring, a procedure which I thought was original, until I found upon investigation that Huizinga had described the identical operation 20 years ago.

Fat taken from the leg, buttocks or abdominal wall and immediately implanted into Tenons capsule for enucleation perhaps offers the easiest, quickest and safest operation and the immediate results are excellent. Partial absorption of the fat does take place in time to the extent of about one-fourth ( $\frac{1}{4}$ ) its volume, which is its only objection. Where dense fascia can be included in this graft, such as fascia lata, the shrinkage is usually less.

Fat and fascia can also be used to fill out badly sunken orbits as a secondary operation, in those cases where an enucleation has been previously done. As to the use of glass or gold spheres, I believe they give the most brilliant and lasting cosmetic results. There are objections to their use which one should heed. The glass spheres have been known to explode and break while in situ, and I have been informed that cases of late sympathetic inflammation have been reported. Besides spheres do occasionally become dislodged outside of Tenons sheath, which complication necessitates their removal or a second operation.

The operation of fat implants into the sclera is not without merit and I should like to briefly describe the principal points in technique.



The conjunctiva is dissected from around the limbus for a distance of about 7 m. m., with a Bier's knife, the cornea is removed and the globe thoroughly curetted of its contents as in the operation for evisceration. Bleeding from the vessels at the disc and the venae vorticosae is rather profuse and persistent, but can be controlled with sponges of hot boric acid solution packed into the scleral cavity. With these sponges in place the circular corneal opening is made elliptical in the horizontal meridian, in order to facilitate closing. The sponges are removed and a Muller sac retractor holds wide the lips of the scleral wound which allows perfect inspection of the cavity. This retractor does not interfere with the eye speculum already in place. A tenaculum hook or some sharp pointed curved instrument picks up the sclera at the nerve head, and with scissors or knife a circular piece about the size of the cornea is removed, which should include a short piece of the nerve.

Three white silk sutures are inserted in the sclera lips for closure, but the loops pulled aside for the introduction of the graft. A large piece of fat sufficiently great to completely fill the globe is now taken from the abdominal wall or buttocks, and immediately placed within the sclera, and with an instrument holding in the fat, the sutures are tied. The conjunctiva is now closed horizontally with interrupted black silk, and the usual dressing and bandage applied. I have found it advisable not to disturb the dressing for four or five days unless there is pain. After then the dressings are continued daily. The conjunctival sutures may be removed on the 7th day, and the buried sutures cause no trouble. A small prosthesis can be worn in two weeks, and after four to six months when shrinkage has about reached its maximum, a permanent reform eye is adjusted.

Occasionally there develops an edema of the conjunctiva, which when severe, can be reduced by slight scarification.

The final results in all six cases which I have performed have been good. In the last case the immediate reaction was intense, which later proved to be a mild infection. The scleral wound partially ruptured with a

slight protrusion of fat which was excised. In two weeks the globe was quiet and when last seen several months after the operation a glass eye was adjusted which had fair motion.

In summarizing, no one of the operations above described is applicable to all cases. Eyes are removed for sundry causes and the surgeon should have at his command the procedure which would offer the greatest safety to the patient and yet which in the end would give the best cosmetic result. The following examples might serve as a guide; an evisceration should be done in panophthalmitis; a fat implant might be the operation of choice after an enucleation for a severe wound of the globe; a sphere implant would seem to be the best operation after an enucleation for a large buphthalmic eye on account of the large socket; or a fat transplant in the sclera might serve best in the removal of the eye for a large staphyloma; certainly the purse string suture in Tenons capsule and the recti muscles should be used after an enucleation where the patient could only remain under observation but a few days, but never an enucleation with the wound left wide open; such a procedure is almost neglectful surgery.

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### QUININE IN MALARIA CONTROL\*

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Transmission of malaria in a given locality is governed largely by two factors; (1) the abundance of anopheline mosquitoes and (2) the number of malaria carriers in the locality. Anything that reduces either one of these factors reduces correspondingly the amount of transmission that takes place, provided, of course, all other things remain equal. It has been demonstrated conclusively in instances too numerous to mention here that transmission can be prevented and malaria can be controlled in a given locality by reducing the production of anopheline mosquitoes sufficiently.

On account of the success of malaria control efforts based upon anti-mosquito measures and

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\*-Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.

perhaps for other reasons, more attention has been given to this method of malaria control during the past few years than to other measures. The object of this paper is not to detract in any way from the usefulness of anti-mosquito measures in malaria control, but to emphasize, if I may, the importance of reducing the number of malaria carriers in the locality by curing the infection, as a factor also in malaria control.

If we keep in mind the fact that mosquitoes must become infected from infected persons before they can transmit malaria parasites to persons whom they bite, we must realize that any reduction in the total number of malaria carriers reduces to the same extent the amount of transmission that takes place in the locality. We have one remedy and only one with which we can certainly cure the infection; that is quinine (or other cinchona alkaloids). Quinine is a perfect specific whenever properly employed. So far as I know and believe, there are no cases of malaria which cannot be cured and in which the infection cannot be entirely relieved by proper quinine treatment.

To control malaria in a given locality by the use of quinine it is necessary, first, to find out who the malaria carriers are in the locality, and then to induce them to take quinine treatment in an effective way so as to cure their infection.

We can find out the malaria carriers in a locality or in a given group of persons best by a malaria survey, consisting of taking the history as to recent attacks of malaria and making blood examinations. Persons who have had attacks of malaria during the previous twelve months are likely to have the infection for months afterward before they finally lose it as a result of natural influences. They often relapse from time to time over periods of months or years.

If we examine the blood of persons who give histories of attacks during the previous twelve months, we do not find parasites in all of them. Unfortunately, the blood examination does not find the infection in every person who is infected. The number of parasites present at the time the specimen is collected may be too small for them to be found by our present methods of examination. It therefore

is not possible to determine by laboratory examination that an individual is not infected.

In view of the failure of the laboratory examination to discover the infection in all infected persons and in view of the fact that a large per cent. of those who have had attacks during the previous twelve months and have not received adequate treatment are still infected, it is best to consider all who give positive histories as probably infected, and treat them accordingly. Therefore, any person who has had an attack of malaria during the previous twelve months and who has not had adequate treatment should be treated as if known to be infected. It is better to act upon the history in such cases than it is to depend upon the blood examination, especially if it should be negative. Of course, if it is positive it is confirmatory. Since it is advisable to treat all persons who give positive histories, regardless of whether parasites are found in their blood or not, routine examination of the blood of persons who give positive histories is not necessary and should be omitted in general malaria control work for the sake of economy provided such persons will receive proper treatment based upon history of attacks only.

Some of those who give negative histories are also malaria carriers. In localities where malaria prevails to any considerable extent, many persons who have not had attacks during the previous twelve months are malaria carriers and they may be found to have malaria parasites in their blood upon microscopic examination. It is remarkable how large a proportion of the total number of malaria carriers that may be found by blood examination have not symptoms at the time or have not had recognized symptoms of malaria previously.

In a study which I had the opportunity of being intimately connected with in Bolivar County, Mississippi, 31,459 persons were studied. The history of each individual was recorded as to whether he had had attacks of malaria during the previous twelve months or not and then the blood was examined microscopically. Both those who gave positive histories and those who gave negative histories were examined. Of the total number who were found to have malaria parasites in their



blood, only fifty-five per cent. had given positive histories and forty-five per cent. had given negative histories at the time the blood specimens were collected. It would appear from this observation that history of attacks alone would point out only about fifty-five per cent. of the malaria carriers in a community and if one depended upon history alone approximately forty-five per cent. of the carriers would not be discovered.

In order to find as many of the malaria carriers as possible in the group who give negative histories, blood examination should be made. It must not be expected that even the blood examination finds all of the carriers in this group. The more thoroughly the examination is made, the better, but it is not possible to make it so thorough as to find all of them. There is great difference of opinion as to the per cent. of malaria infected persons who can be found by a single routine blood examination, but my own impression is that probably not more than seventy or seventy-five per cent. are found. That, however, is the best we can do at the present time. Of course all persons found by blood examination to be infected should receive appropriate treatment and be cured of their infection. Otherwise they remain malaria carriers, potential sources of infection to others.

The history of attacks of malaria during the previous twelve months and the results of blood examination of those who give negative histories combined, point out almost all persons in a given locality or group who should receive treatment. In localities where malaria is very prevalent and in families or other small groups, of persons where a large per cent. of infection is known to exist, it is frequently better to make assurance doubly sure and advise treatment for all in the group. In such instances the cost of additional quinine may be offset by the saving by omitting laboratory examinations.

The next question for consideration and one of vital importance is an effective and at the same time practical method of treatment. Little can be accomplished with methods of treatment which, though effective if carried out, are impractical or otherwise so objectionable that they are not carried out. The treatment employed must, therefore, be both effective and practical.

The National Malaria Committee has proposed and recommended for general adoption what is known as the standard treatment for malaria. (1) The purpose of the treatment is not only to relieve the acute symptoms but especially to cure the infection and prevent relapse. It is as follows:

"For the acute attack 10 grains of quinine sulphate by mouth three times a day for a period of at least three or four days, to be followed by 10 grains every night before retiring for a period of eight weeks. For infected persons not having acute symptoms at the time only the eight weeks' treatment is required.

"The proportionate doses for children are: Under 1 year, one-half grain; 1 year, 1 grain; 2 years, 2 grains; 3 and 4 years, 3 grains; 5, 6 and 7 years, 4 grains; 8, 9 and 10 years, 6 grains; 11, 12, 13 and 14 years, 8 grains; 15 years or older, 10 grains."

This standard method of treatment is also approved by the U. S. Public Health Service, and is now being taught in most, if not all of the Southern Medical schools. It is being rapidly adopted by the medical profession generally and there is good hope that before long practically all cases of malaria treated by physicians will have the advantage of this effective method of treatment. It is quite as applicable in malaria control work by health agencies as in the treatment of malaria by practicing physicians.

It has been demonstrated that a high degree of malaria control in a given locality can be obtained by the more or less intensive method discussed above, consisting of intensive surveys followed by proper quinine treatment. A trial of this method in an area of one hundred square miles with a population of nine thousand, in Sunflower County, Mississippi, conducted jointly by the International Health Board and the Mississippi State Board of Health, was followed by a reduction in attacks of malaria of 89.9 per cent.

There is another way in which quinine may be an important factor in malaria control quite apart from the intensive method referred to above. I refer now to the cure of the infection in cases of malaria treated by physicians. About twenty to twenty-five per cent. of the attacks of malaria that occur in the Southern



states are treated by physicians.

Practically all cases of malaria treated by physicians receive quinine treatment in one form or another that relieves the active symptoms, but very few receive treatment that results in absolute cure of the infection. Most of them remain infected and many relapse from time to time. During all this time, they are malaria carriers and potential sources of infection to others.

If every case of malaria treated by physicians was cured of the infection, transmission of malaria would be reduced to that extent. If this was continued over a period of years, marked reduction in malaria prevalence would result. It is within the power of the physicians who practice in malarious regions to reduce malaria to a negligible quantity within a comparatively few years, simply by employing and advocating effective and practical quinine treatment such as the standard treatment has been found to be.

The physicians of the country have it within their power to bring malaria under reasonable control, by treating their patients so as to cure the infection as well as relieve the symptoms, long before it can be hoped for by sanitation. This may be accomplished by the general adoption of the standard quinine treatment.

### SUMMARY.

1. Transmission of malaria may be reduced either by reducing the production of anopheline mosquitoes or by reducing the number of malaria carriers in a given locality or group.

2. The number of malaria carriers can be reduced by curing the infection with appropriate treatment of infected persons.

3. Infected persons who should receive treatment are indicated by history of recent attacks of malaria or by malaria parasites in their blood, both to be brought out by intensive malaria surveys.

4. The proper treatment for malaria is the standard quinine treatment.

5. Physicians could rapidly reduce malaria prevalence by curing the infection in all of their cases. This could be accomplished more certainly by general adoption of the standard quinine treatment.

(1)—Public Health Reports, Vol. 34, No. 52, Dec. 26, 1919.

### Discussion

DR. J. W. PALMER, Ailey: The paper of Dr. Bass on malaria has been very interesting to me, because about fifteen or twenty years ago, I practiced for four years in a malarial district where there was the pernicious form, especially of the hemorrhagic type. At that time we did not know malaria was contracted through mosquitos, thinking that it was through the night atmosphere, and through surface drinking water; therefore we would not drink any but artesian water and would not sleep nearer than five or six miles from this district.

Since then we learned of the mosquito and fought malaria by waging war on the mosquito. Now we fight malaria by treating with quinine the carrier who infects the mosquito.

In administering quinine I give the patient 10 grs. quinine three times a day for three to five days, that is the adult dose. I have patients sometimes that I can not relieve in three days and have to run it to four or five days.

I do not give quinine intravenously. I had two patients who, after receiving a dose of quinine intravenously, were seized with convulsions. I do not give quinine intramuscularly or subcutaneously, because it is very painful besides you can and do get better results by mouth, unless in cases where the stomach will not retain it or in special emergency cases.

I always give the bi-sulphate by mouth because it is not so bad on the stomach and nervous system, however, it is about 20% weaker than the sulphate and you have to allow for this in dosing same. I want to thank the essayist for his important paper.

DR. W. A. MULHERIN, Augusta: Recognizing Dr. Bass as the leading authority on malaria, I wish to ask as to the percentages of his cures, from the recognized standard line of malarial treatment? By cures, I mean the complete and thorough eradication of malarial plasmodia from the system, by the eight weeks' continuous use of quinine. The reason I ask this question is, that within the last month we have had two or three of our patients return to us, who had malaria last September, confirmed by blood findings of malarial plasmodia. These children had received the prescribed doses of quinine for three to five days, until fever was controlled, followed by eight weeks of the daily recognized dose of quinine. The clinical picture of malaria existed and the malarial plasmodia, were found in the blood.

As these children, in carrying out their eight weeks treatment of a daily dose of quinine, went well into November of last year, and as there have been no mosquitos since October last, it has naturally raised the question as to the absolute efficacy of eradicating malaria from the system, by the line of treatment advocated by the National Malarial Association. I do

not ask this question in a spirit of antagonism, but entirely as one asking for information from such authority as Dr. Bass.

DR. L. C. ALLEN, Hoschton: I would like to ask the essayist one question. In our section of the country I find there are quite a number of physicians who hesitate to give quinin during pregnancy for fear of producing an abortion. My belief has always been that we should not hesitate to give it, and that is my practice. I believe that these abortions we have in malaria cases are due to the malaria, and not to the quinin. I believe if we want to save these fetuses in these threatened cases of abortion in malaria we have got to give quinin. I may be wrong about that, but I would like to ask Dr. Bass what his practice has been and what his experience has been about that.

I would like to say while I am on my feet, that I believe quinin given intravenously is very dangerous, and I have abandoned giving it in that way.

DR. C. C. BASS, New Orleans, Louisiana (closing): It will not be possible for me to answer fully many of the questions raised in the discussion. With regard to the desirability of using quinin hypodermically or intramuscularly, one of the gentlemen who discussed the subject showed very plainly it is an inadvisable method of administration unless it will give much better results than the administration of quinin by mouth, which it does not. I should like to say, anybody who is not convinced that he ought not to give quinin intramuscularly to his patients, ought to take a few doses himself, and then he will be convinced.

With reference to the intravenous administration of quinin, I must say that sometimes it may be a life-saving measure. It is the quickest way of getting quinin directly into the blood stream, and if we have a patient whose life depends upon getting quinin into the blood stream at once, then quinin may be given intravenously under such circumstances as a life-saving measure. On the other hand, it has no other place so far as I know and believe in the treatment of malaria except to meet an emergency, and then temporarily. Giving quinin intravenously is a formidable procedure accompanied by considerable risk to the patient's life.

At the last meeting of the Southern Medical Association there were 5 deaths reported as having been caused by the intravenous administration of quinin. I mention this to show it is a dangerous procedure. However, when circumstances demand it, it should be given intravenously.

As to the use of quinin during pregnancy, whenever a pregnant woman has malaria, her life may not be in great danger but the life of her fetus is in great danger. If the malaria parasites are permitted to multiply sufficiently, as they frequently will, abortion results. It results from the stopping of the capillaries of the blood stream of the placenta with malarial parasites. Quinin is absolutely demanded for two

lives instead of one whenever a pregnant woman has malaria.

As to whether quinin has any effect in producing uterine contractions, there is great difference of opinion. So far as I personally know, there is no conclusive evidence that it has any such action when given in the moderate doses required for the treatment of malaria.

I think the medical profession is really making great progress towards treatment of malaria, and it is a great pleasure to me to hear the discussion that has taken place here today. It is a little discouraging to hear the advocacy of the intravenous and intramuscular administration of quinin, but I feel quite certain that those who now believe that quinin should be given in that way, except in special cases, will later change their minds.

With regard to the question raised of getting patients to take the quinin, if you prescribe quinin for a patient without giving him proper explanation as to the necessity for it, and tell him he has got to take it for eight weeks in order to get rid of his malaria without explaining in more detail, he may quit taking it. The doctor who has the confidence of his patients that he should have, should have very little trouble in getting them to take quinin. It is very important to point out to malaria patients that they are infected and to get rid of this infection they must take quinin for sufficient length of time. A patient with ordinary intelligence is usually amenable to such advice and explanation.

As to the proportion of cures that may be obtained by the standard treatment, I will say that the standard treatment of 30 grains of quinin a day for a period of three or four days will relieve the clinical symptoms of uncomplicated malaria in almost if not 100 per cent. of cases. I would not say it relieves the clinical symptoms in 100 per cent. of the cases. There may possibly be some exceptions. The exceptions, however, are so rare that one who is working with malaria all the time as I am may be unable to find such cases frequently. I have been looking for five or six years for such a patient. I have heard of them, but I have not been able to find such a patient.

With regard to the percentage of cures of infection, unfortunately it is considerably less than 100 per cent. A wide experience with the standard treatment indicates that from 90 to 95 per cent. are disinfected or cured of their infection. If we stop at the end of eight weeks with every patient, about 5 to 10 per cent. of the cases would remain infected.

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The U. S. Public Health Service estimates that at least 500 and possibly 1000 lepers are at large in the United States, and that the number is increasing. The government did not start work on its Federal Home for Lepers a minute too soon.



## NEWER ASPECTS OF HIGH BLOOD PRESSURE.

Ralston Lattimore, M. D., F. A. C. P.,  
Savannah, Ga.

To the majority of men, after middle of life, death comes from apoplexy, uremia and cardiac failure, or involvement of the coronary arteries (angina pectoris).

Arterial hypertension is not a disease but a symptom. Every patient in whom a persistent hypertension is found, requires not only observation, but treatment. It is certain that high arterial tension for a while, is compatible with well being, and is often discovered by pure accident; these are the so called cases of essential hypertension or hyperpiesis, by which is meant, a manifest hypertension, with hypertrophy of the left ventricle, but no appreciable evidence of kidney or arterial disease, but will in time develop signs of kidney and arterial disease.

It has been demonstrated over and over again, on the autopsy table, that profound sclerotic changes are found in the arteries without evidence of hypertension during life, and also extreme hypertension may have been present during life, with little if any changes in the blood vessels or kidneys; however experimental evidence goes to show that arteriosclerosis is the result, and not the cause of a continuous hypertension.

It is practically admitted that in every case of chronic hypertension albumin is found, most often a trace, with or without casts in the urine.

**Etiology of Hypertension.** The cause has not been explained in a conclusive way. Hypertension most often occurs in people who lead a tense life, pursue their vocation with tremendous seriousness, and worry over trivialities; they are irritable, their sleep is not restful and refreshing, they do not believe in vacations, they eat well, live well, "They may be said to die of success."

Their most conspicuous mental capacity, is their inability to play.

The individual with hypertension is usually mentally and physically prematurely old.

The well balanced life requires play as well as work.

Why psychical and physical influences should bring about a vasoconstriction with secondary consequences, I do not know.

Many patients inherit a better vascular system than others.

I am not trying to account for all cases of so called hypertension; once in a while we meet people who do not conform to the above type, and we recall patients in whom hypertension has been due to syphilis, scarlatina, rheumatism, and other influences, such as intestinal absorption, pus sinuses, bad teeth, pus tonsils, and etc., but most of them conform to the type I have described.

The direct etiology is unknown; however, there is a type in whom hypertension is very apt to occur.

The type is the opposite of the child in both mind and spirit, a knowledge of this type may prove useful.

**Treatment.** Instruction to the patient: Be tactful, explain to patients the nature and significance of hypertension. Many patients when told they have increased blood pressure are apt to become confirmed hypochondriacs. I think it is best to advise patients to stick to their work, shorten the work hours, give up detail work, and not to take on affairs of any kind that will cause mental anxiety; take plenty of mental and physical recreation.

**Diet.** It is my custom to limit the diet; advise the patient against over eating. Diet, practically limited to fruits, cereals, milk, and vegetables, with very little meats. My patients discontinue the use of eggs—except when prescribed, I have found that many patients unless advised otherwise, when told not to eat meat, will eat eggs two or three times a day and will also substitute chicken, fish, and etc. In making this statement I am aware of the studies of Epstein that in parenchymatous nephritis, a high proteid diet was found beneficial. I am also aware of the observations of others, that a high proteid diet, does not effect albumin or hypertension; personally, my observation has been otherwise.

I have found with others, that many of these patients are over weight, over fed, and lack exercise, I find it very important to attain for my patients minimum weight, with maxi-

\*-Read before the Medical Association of Georgia, Rome, Ga., May 4-6 1921.



imum efficiency, exercise and diet will accomplish this. It is also necessary to keep the intestinal tract clean.

**Exercise.** In a compensated circulation, I have found well regulated exercise gradually increased, of great benefit; walking, golf, and etc., We may say to patients. "What you can do with comfort do with safety." Try to stop short of fatigue, irrespective of what you are doing. It is remarkable how with exercise and diet, these patients improve, they feel better, sleep better, the pulse is slower, and they have a sense of general well being. In patients with cardio-vascular insufficiencies, or a full bounding pulse with signs of premonitory cerebral hemorrhage; it would be ill advised in fact, cruel to enforce an active life; these patients require rest.

**Drugs.** In treating these cases of hypertension, the essential thing is to bring about a well balanced circulation; drugs will be of some service as emergency remedies, but the effect, as a rule, is only temporary.

**Nitrites.** Nitroglycerin is best emergency drug, especially where we have "Spasm Phenomena" such as angina pectoris, transient aphasia, numbness, headaches, vertigo and etc. due to cerebral irritation. My nitroglycerin patients carry small granules of nitroglycerin with them for emergencies, but I never prescribe them for routine treatment.

**Iodides.** The use of iodides was based on the theory that arterio-sclerosis caused hypertension, and that iodides softened the sclerotic arteries, but the evidence is overwhelmingly on the side that hypertension causes sclerosis. Of course if there is an old history of syphilis, with persistent headaches, iodides are indicated otherwise they have no effect on hypertension.

**Digitalis.** Benzyl benzoate and chloral hydrate are used in a symptomatic way. Digitalis is said to have a steadying and beneficial effect on circulation, while chloral hydrate and benzyl benzoate have a quieting effect on the patients, who are frequently of a nervous temperament. Just as morphine in a secondary way relaxes the arteries.

During the past ten years I have observed many of these cases; upon rational treatment; I have seen hypertension reduced, and remain

down in patients who live within their cardiovascular limitation, and in others while the systolic pressure has not been much reduced, the diastolic has come down, and the pulse pressure improved, with great relief of subjective symptoms. Many of these patients are leading comfortable lives, living within their limitations, and are useful citizens.

#### Summary:

1-Hypertension is not a disease but a symptom.

2-Hypertension and arterio-sclerosis are closely associated, and probably due to infection, active or remote.

3-High blood pressure for a while, is compatible with well being, but, if persistent will probably be associated with arterial disease.

4-Chronic Nephritis is usually the result and not the primary cause of hypertension.

5-The internal secretions, controlled by the sympathetic nervous system, probably exert a marked effect on arterial tension.

6-Some people inherit much better vascular systems than others.

7-There is a type of person conforming to certain characteristics, in whom, hypertension is likely to occur, this type is the opposite of the children in mind and spirit; a knowledge of this type may be of the benefit in advising our patients.

8-Every patient with persistent hypertension requires observation and treatment.

9-We have drugs, which reduce blood pressure, but their effect, is evanescent, and do no permanent good, and often a great deal of harm.

In conclusion I wish to acknowledge my indebtedness to Dr. Eli Moschowitz, of N. Y. from whose paper on Hypertension, much of my material has been abstracted. His observations and mine have been along the same line, we differ but little in our conclusions.

## FINAL RESULTS FOLLOWING TUFIER'S OVARIAN GRAFT.\*

Geo. R. White, M. D., Savannah, Ga.

It was the privilege of the writer in the summer of 1914 to visit the clinic of Tufier in Paris and see the work of that distinguished surgeon in grafting, or, transplanting ovaries which had been irreparably damaged by infection or other causes, thereby preserving the menstrual function and minimizing the deleterious consequences following oophorectomy. This work was probably the first serious attempt to make practical use of those organs when too badly damaged to remain *IN SITU*. Tufier's claim for the operation was that by removing, and then transplanting the ovaries they would live and functionate, thereby saving the important function of menstruation and avoiding the train of unpleasant symptoms, known as cachexia oophoprevia, or, induced menopause. The value of the internal secretion of the ovary *per se* is minimized by Tufier, as that can be supplied by other glands, and the chief use of the ovarian graft is in maintaining menstruation, and causing elimination of deleterious substances from the blood. There is no advantage in an ovarian graft if the uterus has been removed, so that menstruation can not take place. Tufier's experiments showed that neither heterogenous nor homogenous grafts would take, and success was attained only by the use of autogenous grafts. The experiments with homogenous grafts have been not repeated, and Tufier's statement as to their futility is received as final, though with deep regrets that the benefits that procedure promised can not be realized.

Since the autumn of 1914 Tufier's ovarian graft has been employed in all suitable cases in my service, and that of Dr. Chas. Usher, and as a basis for this report we have records of 55 cases operated upon during the past seven years.

The technique of the operation is to remove the ovaries and tubes, leaving the uterus; trim off such parts as are not desirable for the graft, split the ovaries open and insert one on each side between the rectus muscle and

the peritoneum well out toward the lateral edge of the muscle. No suture is required and the abdominal wound may be closed in the usual way. Drainage of the peritoneal cavity may, or may not be employed, and sepsis, if not excessive does not interfere with the grafts.

In considering the indications for the operation it must be made clear that the discussion of the conservative versus the non-conservative treatment of gynecological conditions is not involved. If the case is one in which the pathological condition can be corrected, or removed, and the patient be restored to normal both anatomically and functionally, a conservative operation should be performed, and the ovarian graft offers no substitute. In those cases in which the adnexa are so badly damaged that pregnancy is impossible and the ovaries if left behind would be but a menace to the future health of the patient; and the usual procedure is double tubo-oophorectomy, with or without hysterectomy, Tufier's graft offers a method of treatment whereby the advantages of the radical operation may be attained, and at the same time menstrual function preserved for a time at least, and the well known disorders following are avoided. The large majority of oophorectomy cases were either chronic gonorrhoeal infection with badly damaged adnexa, or, patients upon whom a conservative operation had been performed without affording them any relief. A large number of the patients were prostitutes, and for women of this class the operation is especially useful, as these patients demand speedy and permanent relief of symptoms; and loss of the function of reproduction is considered an asset.

Three of our case were for nervous conditions associated with menstruation. One was a case of true epilepsy with severe attacks at menstrual epoch, improved by operation. One was a case of hystero-epilepsy with normal genitalia, unimproved by operation. The third was a case of infantile uterus with dysmenorrhoea and hystero-epilepsy. No hysterical attack since operation a year ago. It would seem that the operation might be useful in this class of cases, in that the ovarian connection with the nervous system can be severed and menstruation maintained, but experience is too limited to attempt to draw conclusions



as to the ultimate value of the operation.

Our records show a total of fifty-five (55) cases operated upon since August 1914, and of these, twenty have been followed to date. In all but one case menstruation was reestablished, beginning in from one to six months after operation, usually between three and five months. In two cases menstruation ceased and the menopause came on within a year. In the majority of cases menstruation became irregular and ceased between the second and third year. In two cases it ceased after five years, and in one case it still continues, six years after operation. About half of the patients complain of excessive menstruation the first few months after reestablishment of the function, but in no case was it severe enough to require treatment. Three cases complained of pain during menstruation, but of no great severity. When menstruation ceased nearly all patients had flushes and the usual symptoms of menopause, but in no case have these symptoms been excessive. A secondary operation has not been required in any case, and nearly all speak of greatly improved health. No case of marked obesity has been noted.

The results of the operation may be summarized by stating that Tufier's graft reestablishes menstruation after oophorectomy in practically every case. Menstruation begins in from one to six months after operation, and continues from one to six years; it is often excessive, but seldom painful. Menopause comes on gradually and is similar in all essentials to the normal menopause.

While the operation perhaps has not accomplished all that it promised when first introduced, we now have ample experience to justify recommending this simple procedure in all suitable cases in which the ovaries have to be removed, since it preserves the menstrual function for a time, allowing a process similar to natural menopause to take place and saves the patient from much physical and psychic discomfort.

## VESICAL NEOPLASMS FROM THE CYSTOSCOPIST'S STANDPOINT.\*

S. A. Kirkland, M. D., Atlanta, Ga.

Very few diseases occupy a more important position in the mind of the urologist than vesical neoplasms. Of recent years a very great change has taken place in our conception of these conditions. Since the advent of cystoscopy and especially since cystoscopes have been perfected to such an extent that these growths can be detected and demonstrated with little difficulty on the physician's part and slight discomfort to the patient, the frequency of these neoplasms has become more apparent. No doubt, numbers of cases designated "idiopathic hematuria" have been due to growths in the bladder which were not recognized in the absence of the scope or on account of the types of instruments that were very unsatisfactory for observing the interior of the bladder.

There are two chief varieties of bladder growths. We have malignant and benign. May have both types at the same time in different parts of the bladder. In order of frequency we have the following:—

Papilloma, Carcinoma, Myoma, Fibroma, Sarcoma.

These tumors are more common in men than in women and usually appear between the ages of thirty and forty. At this time they are apt to be benign; after forty they are usually malignant.

The causative agency of bladder tumors is not definitely known. Parasitic theory has been advanced; however not proven. Most generally accepted is that they are due to an irritant in the urine. Papilloma has been known to occur quite frequently in dye workers. This has been attributed to the fact that these dyes—fuchin etc.—have some irritating effect on the bladder mucous membrane. Injury and inflammation are exciting causes and metastases from other organs and glands, principally prostate may be the primary source. Propagation may be by direct contact, being grafts produced by implantation of

\*Read before the Medical Association of Georgia, Rome, Ga. May 4-6 1921.



the original tumor upon the previously infected surface of the mucosa.

In looking through the cystoscope some of these tumors are covered with villi or tendrils and are either sessile, that is spread out over the surface or pedunculated (set on a stalk). They vary in size from a B.B. shot to a hen-egg and may be multiplied or single, usually appearing in the neighborhood of the ureterorifice. Frequently they conceal these openings. Other parts of the bladder, especially posterior wall is frequently affected.

Symptoms of vesical neoplasms are the same whether benign or malignant. Most common of these is hematuria. It appears suddenly without any obvious cause, continues for a few hours or for a day or week and suddenly ceases. It is not always possible to make a complete cystoscopic examination in presence of tumors which give rise to extensive hematuria. Malignant growths may give rise to pain. This symptom is very inconstant. When present in benign papilloma it is due to cystitis and becomes less as this condition clears up under treatment. Pain may be very intense at times and may be accompanied by strangury. We may get spasm of the bladder in types of cases where we have the growth engaged in posterior urethra. Other types where we have retention of urine from plugging of the internal meatus.

Diagnosis of vesical growths can be accomplished by the use of the cystoscope. The older methods have always been uncertain. It is true that a tumor of the bladder can be diagnosed from clinical symptoms, still the cystoscope offers a method whereby we can tell with absolute certainty the presence or absence of a tumor, their situation, whether single or multiple and character of same. Don't understand me to say that one can determine the above points with absolute certainty in every case, for there are times when one encounters such profuse hemorrhage that the examination with the scope discloses absolutely nothing. Patience and gentleness aid considerably in overcoming this difficulty.

In addition to determining the points previously mentioned, one can with the use of a cystoscope demonstrate the effect a growth has on the surrounding tissues. A growth situated near a ureter opening always

causes a change in that side. One may find congestion of ureter opening and puckering of tissues or distortion to such an extent to cause obstructive symptoms in the kidney on that side. Very often one finds an increase in vascularity of the tissues surrounding the growth, sometimes edema.

In treating vesical tumors one must not lose sight of the fact that they have a strong tendency to recur. Treatment may be divided into operative and pallative. Anything short of complete removal of the growth may be designated as pallative. We have patients at times where it is impossible or deemed unwise to remove the entire growth; a partial excision is undertaken with the intention of prolonging the life, of assisting the bladder function or making the patient more comfortable for the remainder of his days.

When hemorrhage is profuse, the patient should be put to bed, light diet, ice bag over the suprapubic region. Such drugs as hydrastis, ergot or stypticin may be given internally. It is a good idea to place the bladder at complete rest. Muscular contraction stopped by tying a catheter in the urethra for several days. This drains the blood away while fluid and before it has clotted. A small quantity of fluid, about three ounces, 1-1000 nitrate of silver solution may be injected into the bladder twice a week. Hemorrhages have been checked by injecting a 2% solution of Merck's gelatin. Where the hemorrhage cannot be controlled by the above mentioned methods it may be necessary to perform a suprapubic cystotomy for the purpose of evacuating clots and removing surgically the growth or using the Paquelin cautery on the bleeding spots. Pain can be controlled by anodyne internally or rectal suppositories.

In cases of inoperable malignant growths of the bladder, radium treatment seems to offer more in the way of relieving the patient and prolonging his life than the radical operations. The use of radium combined with subsequent fulguration has given good results along this line. Success has been attained in treatment of benign growths with the operating cystoscope by means of a snare and cautery. This method has met with much success in treatment of Malignant conditions.

To Edwin Beer of New York should be

given the credit of developing the method of destroying bladder growth with the high frequency current. Remarkable results have been attained in removing small growths in which malignancy has been suspected. There seems to be no limit to the size of benign growths that can be treated in this manner.

We still have other cases in which none of the former mentioned methods are sufficient to obliterate the growth. Open operation must be resorted to and in malignant growths where the submucous structure of the bladder is infiltrated nothing short of removal of this viscus or a complete excision will prevent recurrence of the growth.

A detailed description of any of the operative techniques will not be attempted, as a lengthy paper could be written on either procedure alone. One important point I would like to offer and that is, that vesical growths with hematuria calls for a cystoscopic examination for the purpose of arriving at an early diagnosis in order that a prompt operation may be performed. Remembrance of this one point has been instrumental in saving numerous patients' lives in the past and will very often prevent embarrassment to members of the medical profession.

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### THE INFLUENCE EXERCISED BY THE FAMILY PHYSICIAN ON THE MENTAL HEALTH OF THE COMMUNITY.

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The health of the nation was formerly entrusted to the exclusive care of the physician but within the past few decades this trust has been usurped to a degree by others and today there is no amelioration of this usurpation but instead there seems to be a gradual strengthening of the tentacles which are constantly reaching out to gain a firmer hold upon public opinion. The legislative bodies of our various states government are extending an increasing recognition to the usurpers each year and there

is every reason to suppose that they will soon enjoy the same recognition that has been accorded the licensed physician. At the present time there are a few states in which the physician does not enjoy the exclusive right of signing death certificates or performing surgical operations, but shares them with a comparatively new cult whose original contention was that all disease is due to bone deformities. If this cult has secured equal privileges with the physician, it is not unreasonable to suppose that the same privileges will be denied those who believe that disease is due to the pressure of a vertebra on a nerve or that disease is due to an error of thought.

Our research laboratories have examined into the claims made by these various cults and after an impartial investigation have pronounced them to be fallacious and without merit, therefore it should be pertinent to inquire wherein lies their ability to secure an increasing number of followers. It is our duty to alleviate the suffering of mankind and surely we cannot afford to ignore or to regard it beneath our dignity to examine into something that would promote the chronicity of any disease which would increase the sufferings of mankind. No fair minded person or body of people could accuse a profession who having stamped out yellow fever, mastered typhoid epidemics, made cities possible by their researches in sanitation and are making every effort to eliminate disease, which is the source of their incomes, as having ulterior motives in attempting to safeguard the public from accepting forms of treatment which we know to be lacking in merit and containing an element of danger.

Heretofore we have pursued a policy of attempting to obstruct legislation favorable to the various cults and making intermittent efforts to educate the public to the dangers of accepting treatment from inexperienced hands. A cursory examination of the statute books and an enumeration of the clientele of these practitioners will convince one of the ineffectualness of these measures, therefore it is very evident that we must change our plan of campaign if we are to succeed in our efforts to safeguard the public.

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\*-Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



The greatest military victories have been achieved by severing the lines of communication between the enemy and his source of supplies, and whenever a successful general formulates plans for a campaign he takes cognizance of this fact and tries to maneuver his army in such a way that the enemy will be shut off from their source of supplies.

Perhaps we would be more successful in our campaign against these various cults if we would emulate the example set by the military and make attempts to prevent supplies, which in this case would be patients, reaching them.

The first step to be taken in this plan of campaign is to ascertain the class of patients from which these people draw the greatest number of followers. The second step is to maneuver our forces in such a way that we will cut them off from their clientele.

A few inquiries directed to any number of physicians will establish the fact that the patients whose allegiance to the medical profession have been deflected to other forms of healing belong to the neurasthenic, hysteric, and psychasthenic types and therefore should be classified as being mentally unhealthy. This will furnish us with the necessary information regarding the enemy's source of supplies and permit us to direct our attention to the formulation of plans which will enable us to prevent these supplies reaching him.

Before formulating these plans it would be well to learn the cause of the deflection of these patients in order that we might have a better comprehension of the weak points in our armament.

This reason is not difficult to find and might be summed up in one word. **Neglect.**

The average physician will resent this charge of neglect and will in all probability state that he was honest enough to tell the patient that there was nothing wrong with him. He is conscientious and believes that he is doing the patient a service by telling him that his trouble is imaginary, but in doing this he is failing in his duty to help the patient and is injuring the whole medical profession. He fails to recognize the fact that the brain can become functionally diseased perhaps more easily than can the

organs of the body. A hundred years ago when the average person gained his livelihood through the efforts of his brawn and had only savages and wild animals to match wits against, the brain seldom became functionally diseased. Today however it requires a constant matching of intellects with others in order to gain a livelihood and the consequence is that the brain is most susceptible to functional disorders. Among the savages and lower races of mankind there is very little evidence of neurasthenia or the psychoneuroses, but in civilized man the nervous system is more highly organized and these diseases are increasing with great rapidity.

Again there are physicians who refuse to recognize the fact that functional nervous disorders are mostly due to psychological causes and they continually search every nook and cranny of the human anatomy for a physiological cause. They frequently mistake the symptoms of nervousness for the cause and treat them instead of the underlying disease. The patient seldom if ever recover under their treatment and eventually become disgusted and drift to the charlatan.

Many physicians claim that there is nothing tangible to work on in the neurasthenics and other mental maladies, but they are mistaken for an abnormal thought or act is just as tangible to the neuropsychiatrist as the heart murmur or rale is to the internist. Then too it frequently happens that neurasthenia is the premonitory symptom of an insanity or an organic disease of the brain or nervous system which if recognized in the earlier stages would respond to treatment, but if allowed to develop farther becomes incurable.

The mentally ill suffer far greater pain and mental anguish than any other class of patients. They not only suffer all the pangs of the disease they fear but in addition they picture the most horrible consequences that might follow. Because they appear physically well and are ambulatory, their relatives and friends accuse them of malingering and never extend the sympathy they so richly deserve. They are seldom taken seriously by the medical profession or laity because there is no evidence of a physical disease, and yet they furnish the greatest number of chronic invalids.



The family physician is the first man in the profession to come in contact with the mentally ill and it rests with him whether they shall become derelicts upon the shores of life and the prey of every charlatan, or receive intelligent treatment and regain their health.

It is the family physician who can eliminate the charlatan from our midst by shutting off the source of their clientele. Perhaps his alma mater neglected to give him the proper instruction in the care of nervous disorders but he can procure numerous books which will enlighten him on the subject. If he has not the time and patience at his disposal to give the mentally ill the attention they require, he can always refer them to another physician whose time is not so limited. If he fails to do this they will, through necessity, drift to the charlatan.

Patients suffering with pneumonia, typhoid fever, appendicitis, or any other acute ailment never leave the physician for the pseudo-practitioner because he gives them the attention they require. The mentally ill leave him because they feel that they are neglected.

It is said that a chain is as strong as its weakest link, and the same may be said of the physicians in their fight to eliminate the quack from our midst. The influence wielded by the family physician on the mental health of the community is sufficiently great to separate the charlatan from his source of supplies without resorting to our legislative bodies. But he must first resolve to cease neglecting the mentally ill and then keep his resolution.

### **TONSILLECTOMY UNDER LOCAL ANAESTHESIA—HOW TO OBTAIN BEST RESULTS\***

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The title of this paper suggests a challenge or certainly a difference of opinion, as to the best form of anaesthesia to employ in the removal of tonsils. It likewise offers an opportunity for discussion as to what constitutes a satisfactory result following such an operation.

In my hands the use of a local anaesthetic

in the removal of tonsils in an adult, or any person of such age as will warrant reasonable co-operation, has proven best. It is largely a question of confidence in securing the patient's assistance and co-operation, and this can be had only by having the patient understand that all your efforts will be centered upon a successful operation with as much comfort to them as possible. No dependence is placed on personal equasion, hypnotism or psychic influences. I believe in a real therapeutic agent, and try to employ it.

Patients are prepared in the same manner as if a general anaesthetic was contemplated. A laxative is prescribed and a light meal the evening before the operation. No breakfast or liquids on the morning of the operation. If convenient they spend the night preceding the operation in the hospital where this routine can be carried out with certainty. Half an hour before going into the operating room 1-8 gr. morphia with 1-200 gr. scopolomin is given hypodermically. In the operating room they occupy a sitting posture in a regular office treatment chair. The post-pharynx, tonsil surface and pillars are swabbed with a ten per cent cocaine solution until all reflex of the pharynx is controlled. It is well to squeeze each swab moistened with cocaine before applying to the throat so as to prevent a super-abundance of the drug being absorbed.

Ordinarily five to eight minutes is sufficient time to secure complete relaxation of the post-pharynx. You can understand, too, that the application of cocaine in this strength to the tonsil surface and pillars will prevent some of the slight pain in the introduction of the tonsil needle, as described later. Much of the gagging will be controlled by having a post-pharynx insensible to touch. The hysterical gagging can be largely controlled before and during the operation, by having the patient take a normal respiration at regular intervals. If they forget to do this, you can occasionally remind them to "take a deep breath."

We use for injection a fresh solution of 1% novocain with six drops of adrenalin chloride to the ounce. This is injected through a curved tonsil needle as follows:

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The point of the needle is introduced behind the anterior pillar midway between the upper and lower poles, and about 6 to 8 drops of the solution instilled. The first drop or two is instilled as the needle enters the tissue and continues as the needle penetrates to its full curvature. The point of the needle is carried upward and then downward without re-introduction and about the same amount injected. Traction is made on the needle with the idea that a certain amount of separation of the capsule will occur and allow the solution to flow around the tonsil. The upper and lower poles are anaesthetized in the same manner, particular attention is given as to the amount at the lower pole. This has proven to be the most sensitive point in our cases, so, more solution is injected at 'his point. The posterior pillar is pierced usually in about two places, and a few drops of the solution instilled. Not more than a dram of the novocaine is ordinarily used, to each tonsil, and this means that less than one minim of adrenalin is within the tissue surrounding each.

The author will not attempt to say which form of operation is best. In our hands the 'blunt dissection and snare' operation has been satisfactory. We have seen some very skillful performed operations under every method. We have likewise seen some very poor work in the hands of skillful men who attempt to use every method. Our advice is, DO YOUR OWN OPERATION, whether it be Sluder, McEwen-Beck, sharp dissection, or a modification of any of these, and learn by that method to thoroughly enucleate the gland without sacrifice to the surrounding tissue. This is a good surgical principle wherever applied.

We do not depend upon visual inspection of the gland to determine if all the tonsil tissue has been removed. We use the retractor end of Hurd's blunt dissector, rolling out the anterior pillar to see if shreds are left at this point. The supra-fossa is likewise examined. The whole surface of the wound should be dry, if not, such points as show a real bleeding, not the small red points so often seen on the surface, should be caught with forceps and tied if necessary. Crush-

ing is usually sufficient. DO NOT PROUD AND PIDDLE OVER THE WOUND. See that it is clean and dry, then leave it.

Our patients are all stretcher cases, providing they do not occupy a room on the same floor as the operating room. They are not allowed to ascend nor descend a stairway, nor sit in chair on reaching their room to show their relatives and friends 'how well they stood the operation.' An order for 1-8 gr. morphia with 1-150 atropia per hypo every four hours for four doses is a routine. This controls the pain, keeps the patient quiet renders the throat dry and eliminates the necessity of leaning over frequently and expectorating in a basin or swallowing. Our patients are given a gauze sponge and told to "wipe from the tip of the tongue all secretions," as necessary. An ice bag is kept to the throat as long as the patient wants it, and this means until they are ready to leave the hospital, as it is a great aid in controlling the pain.

Dr. Henderson of Richmond, Va., told me recently that Aspirin has a local anaesthetic effect upon the mucous membranes, and if a five grain tablet was allowed to dissolve in the mouth every four hours the pain when swallowing would be very much relieved.

Patients remain in the hospital from 24 to 48 hours, longer if necessary. No spraying or gargling is allowed, except enough water to rinse out the fossae after taking nourishment.

Such instruments as would be needed in post-operative bleeding, remain in the hospital as long as the patient does. We make it a further rule not to remove tonsils at more than one hospital the same day.

This technique, followed in each case, constitutes a routine which may sound a bit overdrawn, but certainly gives results. We are a bit too anxious to make operations easy. To save our patients as little inconvenience as possible, regardless of the danger associated from hasty judgments or careless methods. The experience in the army was a great help to many of us, particularly was this true to those of us who had a service in a General or Reconstruction Hospital. We had an opportunity of working



out many problems. Every patient sent to a General Hospital was first classified, a definite history secured, diagnosis made, and sent to the ward which his condition warranted. We had absolute control over the man from that time and found them submissive, willing at all times to follow the orders of the officers, ready for an operation when advised, and willing to co-operate in convalescence. Here I saw an opportunity to work out a routine for tonsilleotomies under local anaesthesia. My attention was soon directed to the ease with which the fellows acted during the operation when they were prepared as if a general anaesthetic was contemplated. No nausea, fainting, and very little fright or apprehension, especially after we started using the morphine and scopolomin. My experience before entering the army led to a foregone conclusion that a rather high percentage of post-operative tonsil cases would have a secondary bleeding. My attention was soon attracted to the infrequency of secondary bleeding when treated routinely as outlined above. Out of a series of one hundred cases, I was called to the ward to see one secondary bleeder, and in my absence, an officer of the day was called to another. Each case was promptly controlled with an application of adrenalin or ferrie chloride. I experimented with the use of adrenalin chloride as follows: We started by using 30 gtt. of adrenalin to one ounce of 1% novocain, gradually reducing it until at present I use 6 gtt. to the ounce. With two drams used for both tonsils, the area on both sides of the throat have less than two minims infiltrated into the tissues, not enough to bleach out, but hemostasis is quite satisfactory. Seldom more than one sponge is stained in mopping out each tonsil cavity. I wonder if complete hemostasis (to the bleaching point), does not tend to a more decided local relaxation two to three hours later, when most secondary haemorrhages occur.

This brings us to what I consider the most important element in any surgical operation—DIAGNOSIS. This answers the whole problem in the sub-title, "How to obtain best results." If we are always certain that a patient has a surgical condition, and then

the operation be performed at the opportune time in a skillful manner, we can be certain of results. This information, however, should be obtained by the individual who expects to perform the operation. Too many of us act upon a telephone message, letter or some indirect communication, maybe from a physician or patient many miles away. Some of us make arrangements for an operation before we have seen the patient. I recall only a few years ago accepting a diagnosis over the long distance phone from one of my best physician friends, and had the operating room in one of our hospitals ready on the arrival of the physician and patient. Under general anaesthesia an attempt was made to remove a big, boggy, bleeding tonsil. Upon inquiry the doctor admitted that he had treated the patient the week before for an acute follicular tonsillitis. He stated that he wanted the tonsils removed because the patient had recurrent attacks of tonsillitis every three or four months. His diagnosis was correct, they should have been removed, but my eagerness, as well as carelessness, led me into the mistake of attempting the removal at that time. I had the honesty to admit this, and summed up the courage to come out without removing the gland. We must be able, as surgeons, to do more than perform a skillful surgical operation. We must understand the condition for which we operate. We must convince the patient that we have endeavored to find the trouble for which we have advised an operation. We must be able as internists, to see something more than a case through which we can satisfy our curiosity as to the merits of the entire pharmacopeia.

At this time we face the danger of making operations so easy that patients will come with a ready diagnosis. When we are able to do so many operations without pain, and the dread of a general anaesthetic dismissed from the minds of our patients, and the apprehension concerning same, from our own, we may be apt to make diagnosis without the usual care and precision. This is an important thing to my own specialty and to every one, for that matter, but it concerns my colleagues and myself from the standpoint of



classifying everything under our own domain. It goes further still, we may minimize the danger of the operation coming under our specialty, and especially that of tonsillectomy. This is an operation which, in my mind, should not be done in an office, yet I know some splendid men who are doing this work in their offices and having, as they think, good results. But I venture the statement that they have a **higher**, a very much higher, percentage of secondary bleeding than those who hospitalize their cases. Let me emphasize, **DO NOT MAKE A SIMPLE MATTER OF A TONSILLECTOMY IN YOUR OFFICE**, nor leave your patient to the kind solicitude of relatives and friends in their home.

We feel that we should not lose sight of the patient as soon as the operation and post-operative care are complete. We should share some delight in having a patient report that most of the floating opacities have disappeared and vision much improved after the tonsils are removed, in case of focal infection arising from this gland. We should particularly watch the cases of rheumatism, arthritis, and heart lesions arising from the same source. If any surgical procedure of ours has failed to bring results from the removal of what we considered the offending organ, this knowledge should be ours. If so, we are not self-deceived, and self-deception, in my mind, may make a fool of any man. If we are interested in results, rather than a demonstration of surgical skill and a compilation of surgical operations, we will be content and anxious to watch the case until satisfactory results are obtained.

The report of group operations without the accompanying report of results, even if the relation between the disease and the operation be remote, should be as incomplete to us as a book without a moral or a story without a point.

## **OBSERVATION ON THE NATURE AND TREATMENT OF SURGICAL SHOCK**

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The term "surgical shock" applies to that condition which results from wounds or surgical operations, in which there is a marked decrease in blood pressure, a collapse of the circulation and a general prostration of the patient. It is my intention to discuss briefly some observations made in over 1000 surgical cases in a state of shock and to outline the treatment which we found to give the best results.

There have been many theories advanced as to the cause and nature of shock. The importance of traumatic shock as a serious complicating factor after wounds and after surgical operations and its obscure nature led the Medical Department of the Army to establish a Laboratory and School for experimentation and instruction at Dijon, France, where "shock teams" were trained and sent out to the various surgical units operating just in the rear of the active forces. These men did a wonderful work, and relieved the operating surgeons of a large responsibility.

At the Evacuation Hospitals we always had a "shock ward" presided over by this "shock team" of specially trained doctors and nurses. In this ward were treated all cases which when they arrived from the battle fields were considered to be in shock or unfit for immediate operation, and those cases of shock which resulted from extensive operation. Consultation between the surgeons and the "shock" men were held freely and often, with the best possible results to the injured men.

**Observations as to blood changes.** We are usually taught that "in shock a man bleeds into his own abdominal veins." We know that by manipulating the abdominal viscera we can produce shock, and that the mesenteric veins will become engorged with blood, but this was not the case in many of the gun shot wounds of the abdomen which we re-

ceived. There usually was no splanchnic congestion. There seems to be a reduction in blood volume even though there has been little or no external hemorrhage. What has become of this blood? It is not in the arteries, the blood pressure is low, the heart has not enough blood to pump, there is no evidence to show that it is in the lungs and we know that it is not in the veins. Experiments showed there was a capillary stagnation, and concentration as shown by the red blood cell count. In a large series of severe shock the capillary count was between six and seven million, there evidently being a transudation of serum and a consequent concentration of corpuscles. When hemorrhage was a complicating factor, these high counts were striking, indicating a concentration in the capillaries. The difference between the higher capillary and the venous count was marked, usually amounting to from one to two and a half million higher in the capillaries. This difference was also shown by the capillary hemoglobin exceeding the venous hemoglobin from six to twenty-nine percent. When hemorrhage is severe the capillary count may be low, but relatively higher than the venous. Dr. Cannon, who was at the head of the shock commission, once advanced the theory that shock was caused by acidosis, as it was always present in artificial shock produced in cats and dogs experimented upon in his laboratory at Dijon, but the treatment of acidosis failed to relieve shock in practice in the hospitals, and it was finally agreed that acidosis was a result rather than a cause.

Many other theories were advanced, as adrenal exhaustion, nerve exhaustion, fat emboli, etc. All had their adherents. We still have reached no definite conclusion as to the cause and nature of shock, but we do know that there are certain important factors involved, as for example, pain. Many of the cases had multiple and severe wounds of the vital organs. These wounds were often received after forced marches of long distances with heavy equipment, lack of proper and sufficient food, loss of sleep, living under a very high nerve tension, (which is impossible for anyone to realize unless he has heard the

whine and shriek of an unseen shell), exposure to cold, wet garments and the soldiers when wounded were in a state of extreme fatigue. Loss of blood and transportation over shell torn roads at a high rate of speed added to the fatigue was particularly severe on the fracture cases. We must remember that there was no light on a truck or ambulance, and most of these cases were transferred under cover of darkness. Many left the field hospitals in good condition only to arrive at our hospitals in a moribund condition, this being particularly true of compound comminuted fractures of the femur. We gave special attention to these femur cases as they seemed so susceptible to shock. After operating and splinting we always held them several days before evacuating them to the base hospitals.

The statistics in these cases would hardly apply in civil practice but are of some interest. Our mortality totals in shock cases were as follows: Injuries to back and spine, 58%; to abdomen, 52%; compound comminuted fractures of the femur, 36.5%. Chest cases did not suffer from shock to such a profound degree. If they did not die from hemorrhage on the battle field, their next great danger was pneumonia. Head injuries did not present a picture of typical shock. They had high blood pressure and a low pulse due to increased intra-cranial pressure. We usually operated upon these cases under local anaesthesia. Cases of shock caused by multiple wounds of the soft parts had a rather high mortality,—41%. They did not react well and many of them were septic due to gas bacillus infection.

Cases which might be termed simple wounds of the soft parts, unless they reached us in the first twelve to fifteen hours often developed gas infection, this necessitated extensive debridement or amputation and resulted in subsequent shock and a high mortality.

#### **Blood Pressure Changes.**

For a long time blood pressure was our greatest prognostic factor and guide to treatment. We considered only the maximum or systolic pressure, 90 mm. being considered



beginning shock 80 mm. sustained for one hour being the minimum for extensive operative procedure, except in severe gas bacillus infections which were hopeless unless operated upon. This done under gas oxygen anaesthesia if possible, but it was rarely available at the front line hospitals. Ether always causes a drop in blood pressure and it is unwise to administer it in cases where the blood pressure is below 80 mm. Cases with blood pressure of 60 mm. if it could not be raised by treatment, were as a rule hopeless, and 40 mm. or below they were doomed. Nothing could be done and their last hours were made as comfortable as possible.

I have in some cases in civil practice had the patient's blood pressure taken before the operation and watched during the operation and find that the approach of shock may be detected by a drop in blood pressure before the anaesthetist notices any marked change in the pulse. I think this important in cases where we have reasons to suspect that we may have to combat shock, as it is detected early and treatment can be instituted before the case is hopeless.

#### **Treatment.**

What can be done for shock? What are our criteria for the various modes of treatment? Whatever the nature of the bodily changes which underlie the state of shock, it is evident that the circulatory functions are in a precarious condition, and that the heart, nervous system and other organs are suffering from an insufficient blood supply. Therefore, everything should be done to promote the factors favorable to the restoration of a normal and stable blood flow, and everything unfavorable to such a restoration should be scrupulously avoided. I will outline the general line of treatment and then go into some details as to how we more accurately determined our course of action.

Warmth by hot water bottles or the hot air frame and plenty of blankets are essential. In cases of moderate shock, hot water bottles should be placed to the soles of the feet, between the thighs, between the arms and chest and one on the abdomen with the palms of both hands resting upon it. This with the elevation of the foot of the bed may

suffice. Some cases due to exposure reacted after being thoroughly warmed.

If the case was severe we used a hot air frame such as is used with nephritics, except we were very careful to prevent sweating as these men had already lost too much fluid. We used an alcohol burner under a joint of stovepipe with elbow entering the frame covered with blankets. Many are prone to vomit, and we gave them hot liquids, such as coffee, soups or water. They should also receive fluids per rectum, usually sodium bicarbonate in hot saline or coffee. Fluids are what they need and those freely. Their vessels need filling up.

In the use of drugs, opinions vary much, but one great remedy is morphine, given freely in large doses to relieve pain, to quiet the patient, and to aid in equalizing the circulation. If it produces sweating, atropine may be added.

Camphor in oil was used, but its effect was transient and uncertain. Pituitrin and ardenalin aid, but the great need is fluid which may be given by mouth, by rectum, subcutaneously and intravenously. Water and normal saline are given and blood transfusion may be done.

#### **Intravenous Treatment.**

Normal saline has a transient effect on the blood pressure, as it is rapidly eliminated by the kidneys. Various solutions have been tried as substitutes, that is such colloids as gelatine and gum acacia. We used a six per cent solution of gum acacia in normal saline believing that it would not be eliminated so rapidly. This solution was made in the central laboratories and sent forward to the hospitals along the front. We found that unless it was freshly prepared it caused severe chills and violent reactions, probably due to a precipitate and being unsterile after a certain time had elapsed. We later prepared it in our own field laboratory. This may not be practical in civil practice as it must be freshly prepared when needed, but it was a very valuable agent under those conditions when the engagements were heavy and blood transfusion was not practical as a routine owing to pressure of time and the large number of cases. It tideed over a crisis and al-



lowed the surgeon to do his work.

### **Blood Transfusion.**

A properly given blood transfusion is the one great method of combatting shock, whether there has been a loss of blood or not. There are many methods used, several are good, the most practical being the sodium citrate method, where the blood can be transported from the donor to the recipient. Care should be taken not to roughly agitate the mixture as it will destroy the cells. A poorly given blood transfusion may do harm. Blood should not be transfused indiscriminately as it is a well known fact that the plasma of certain bloods will hemolyze the corpuscles of other bloods. All persons fall in one of four groups and the donors should always be grouped. In Evacuation Hospital number Four, we had the corps men grouped and when blood was needed, all we had to do was to call for volunteers from the group desired.

Transfusion is also a very efficient remedy in hemophilia. Thirty c. c. of 2.4 per cent sodium citrate solution is used in each 250 c. c. of blood given. In cases of shock complicated by hemorrhage it is desirable at times to get as much information as possible concerning the blood volume and the oxygen carrying constituents. Toward the close of the war in 1918, our shock expert Capt. F. S. Baird of Bay City, Mich., did, I think some original work along this line. He estimated the hemoglobin and red blood corpuscles, then injected a known quantity of fluid. The blood estimate was then repeated. These figures gave him a formula by which he reckoned the total blood volume. These facts were aids in prognosis and treatment. The normal blood volume of a large man may be considered about 6000 cc. if this volume were reduced to 3500 cc. regardless of type or extent of wound, the patient had difficulty in pulling through; if under 3000 cc., they all died. If the hemoglobin was under 40 per cent, they usually died. If the hemoglobin is over 50 per cent and blood volume is below 4000 cc., blood transfusion is debatable will suffice. If the hemoglobin is below 40 per cent and the blood volume is below 4000 cc., blood transfusion is de-

manded. If the hemoglobin is below 40 per cent and the blood volume is below 3000 cc., blood transfusion is of no avail. These cases are all doomed. There were a large number of cases under observation at all times, and we were pushed for time, therefore, these figures were important to us because we were thus enabled to get the best results possible in view of our handicap of lack of knowledge as to the nature and cause of shock. In civil practice we should have a certain number of persons selected as donors, grouped, tested for the Wassermann reaction and ready to be called on at any time. When this is done we shall be in a position to save many cases of shock which in the past we have considered hopeless.

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### **THE AID OF THE ROENTGEN RAY IN DECIDING AS TO THE OPERABILITY OR NON-OPERABILITY OF CANCER OF THE STOMACH**

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It has been well said that when a cancer of the stomach reaches the stage where a clinical diagnosis can be easily made, the patient is generally beyond earthly help. There are many cases, however, who first present themselves to the physician, having waited until their day of grace is well-nigh over. In such cases the x-ray is a valuable aid in ascertaining the amount of material involvement of the stomach, or whether enough sound gastric structure remains that surgical intervention may hold out a reasonable hope of prolongation of life.

The following cases were all brought to us after a tentative diagnosis of gastric cancer had been made, and for the two-fold purpose of confirmation of the diagnosis and a decision as to whether or not surgical efforts would be worth while.

Case 1 was an elderly maiden lady, not very stout at best, but who had reached an extreme state of emaciation and cachexia. A palpable growth could be easily outlined—in fact the diagnosis was practically positive. The roentgenogram showed a saw-toothed deformity taking in the pylorus and about one third of the

lower region of her stomach. Had she been physically a good risk, an operation might possibly have been attempted. Her surgeon was advised against it, and decided not to incur the risk. She died in about five weeks.



Case 1

Case 2 was a man of fifty-five, who had been rapidly losing in strength, though not so much in weight. He was quite cachectic, had no appetite, and complained of an indefinite sense of gastric discomfort.

On palpation a probable mass could be outlined, but on account of the tenderness and rigidity of his abdomen, we could not be sure.

The roentgenograms showed a deformity in the middle zone of his stomach, extending from the lesser curvature almost to the greater curvature. An operation was advised against, and the surgeon, who referred him to us, concurred. The patient, however, was dissatisfied, and went to a neighboring city, where he found a surgeon quite willing to operate. We were not advised as to the details of the operation, but learned that he never left the hospital alive.



Case 2

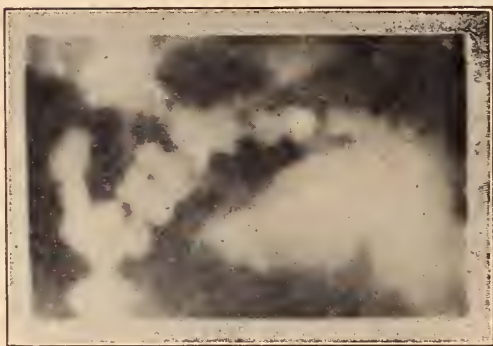
Case 3 was a large man, who had in the past six months lost about fifty pounds. The diagnosis of cancer was presumptive, and the x-ray showed a ragged deformity prepyloric. It was thought worth while to operate on him, though he was informed that his was not an ideal case for surgery. The operation was moderately successful, the patient living in comparative comfort for nearly two years.



Case 3

Case 4 was a farmer of fifty-three, who had lost both appetite and weight. His cachexia was not marked, but he looked sick and weak. The x-ray examination showed a ragged, saw-toothed pylorus, but no other gastric involvement. The examination took place in our office in the morning, he was operated on that afternoon, his recovery was uneventful, and now, after fourteen months, he seems in perfect health.





Case 4

Case 5 was somewhat puzzling, in that no neoplasm could be felt, and, apart from the usual train of digestive symptoms, with some loss of weight, the patient did not seem extremely ill. However, the roentgenograms showed a rather jagged appearance of both greater and lesser curvature at the upper part of his stomach. In our opinion, the case was non-operable, but the surgeon did not agree with us. He went in the abdomen, but that was all, for he found the body of the stomach involved beyond hope of repair.

In this connection, permit us to say, that in most instances the malignant process is much larger than is indicated in the roentgenograms. These show only the interior of the stomach and filling defects therein. The neoplasm, they cannot and do not show.



Case 5

Case 6 was a lady of about fifty,—a physician's wife. It seems she had been complaining of her stomach for so many years, that when she really began to go "down hill", he did not at first take it seriously. There was no doubt as to her advanced state of gastric malignancy, for not only was she emaciated and cachectic, but the growth could be almost mapped out with the eye as she lay on her back. The roentgenogram showed the whole middle zone of her stomach deformed and nodulated. An operation was clearly contraindicated, but both she and her husband implored that an attempt be made, even to the extent of a gas-



Case 6

trectomy, if possible. Against the surgeon's advice the attempt was made. She died on the table.

The advisability of the employment of the roentgen rays as a diagnostic aid in the various gastrointestinal diseases has passed beyond the stage of argument. Its place has been definitely established, and its service in aiding a decision whether to operate or not to needlessly operate is not the least of its many fields of usefulness.



## A METHOD OF STAINING THICK BLOOD SMEARS FOR THE DETECTION OF MALARIAL PLASMODIA

Lemuel J. Johns, M. D., Tallapoosa, Ga.

The recent discovery by Noguchi of the spirochete, *Leptospira Icteroides*, as the causative agent of yellow fever and its proof of transmission by the *Stegomyia Fasciata* mosquito, together with the work of Graham, Bancroft, Ashburn, Craig, and others on Dengue or Breakbone fever and the possibility of saddling its transmission on our hitherto unsuspected friend, the *Culex Fatigans*, stimulates anew our interest in the *Anopheles* mosquito and its relation to malaria, and brings to mind the very prominent fact that such a common disease as malaria is too commonly undiagnosed.

It has long been felt by laboratory workers that thin blood smears for malaria, even when properly taken and correctly stained with Wright's stain, are unsatisfactory so far as denoting the actual presence or absence of the malarial plasmodia in a given percentage of cases. All too often the mistaken therapeutic diagnosis of malaria is made where none exists, while on the other hand many an obscure case is explained away by finding evidence of a chronic malaria during routine examination of the blood. No doubt many more such cases would be found by the average practitioner were he to use the concentrated or thick smear method, thus saving himself both time and trouble and perhaps a reputation as well.

The microscopical identification of plasmodia, and especially of a single plasmodium, is oftentimes difficult to an inexperienced worker. By means of the thick smear method the red cells are dissolved away, leaving in a single field a number of plasmodia which can easily be recognized as to type. It has the advantage of ease, time, and accuracy, and there is no danger of over-staining if one is called away at a moment's notice, for the slides may remain indefinitely in the solution without harm. This method was used in the Marine Hospital at Mobile by the late Dr. Von Ezdorf of the Public Health Service, therefore no credit for its original-

ity is claimed by the writer, but he simply presents it to his fellow-practitioners with a plea for its more extensive use.

After pricking the finger, toe or ear in the ordinary manner, allow three or four drops to fall one upon the other in the center of a glass slide. Allow to air dry. Insert the slide in a Koplín jar containing a 2 or 3% solution of hydrochloric acid in 95% ethyl alcohol until fully decolorized; the minimum time for this is not less than 15 minutes, but no harm accrues even if left over night. Wash in running water, being careful not to hit the slide directly with the stream. Allow to dry and insert the slide in a second Koplín jar containing the stain, and allow to stand for at least 20 minutes, or as much longer as is desired. This stain is made by taking 5 c. c. of a 1:1000 aqueous solution of eosin (1 gram to 1000 c. c.) and 5 c. c. of a 1:1000 aqueous solution of azur II and adding water qs to 50 c. c. This can be made fresh from the stock bottles, as necessary. After staining is complete, wash in water, air dry, mount, and examine with the oil immersion lens, remembering that no red cells will be seen, but simply the outlines of the plasmodia which can easily be recognized if present without a protracted search over a large area.

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## RADIUM THERAPY OF TERATOID TUMORS OF TESTICLE

The statistics given by B. S. Barringer and Archie L. Dean, Jr., New York (*Journal A. M. A.*, Oct. 15, 1921) emphasize the extreme malignancy of teratoma testis and that radium is a very valuable adjunct to operation in dealing with this disease. The type most often seen and most malignant, the embryonal, is the most sensitive to destruction by radium.

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**THE JOURNAL**

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**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia.

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**NOVEMBER, 1921**

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

**EDITORIAL DEPARTMENT****PRESENT STATUS OF ENDOCRINOLOGY**

Departmental and correlated endocrinology is, at least, increasing the interest and study of the gland group, even though the cryptic phase of the problem remains unchanged. The mystery of the ductless glands will never be entirely solved until we know of the existence of them all and something about the physiology of each. The few we know about, may in reality be a small percentage of the total number.

The super-structure of our knowledge is builded upon a frame of scientific investigation so frail that only a few pertinent facts make up the basis for study, yet these offer an open sesame to research as interesting as any medical development in modern times. These few

facts project a status for the study and have led men from many fields into the fascinating realm of the endocrines.

It is delightful to note recent interest from the orthodontic field of dentistry. Howard, of Georgia, is making a routine survey of all malformations from the stand point of correlated endocrine disturbances, and may have interesting facts for us from his work. This investigation is being done in group study.

The commonly known condition of "Crooked Teeth" is recognized as being a result of malformed dental arches or jaws. Therefore, we might conclude that such bone disproportion is produced by a perversion of one or more of the gland group, and therefore a correlation of general bony malformation could preclude the probability of local etiology, although in many instances our so-called "Crooked Teeth" and mal-occlusions are manifestly local in origin.

The interest from this cult shows the advance even though superficial, in the study of bony formation. This has been shown by several studies, particularly that of Engelbach, to be influenced by the action of the anterior lobe of the pituitary gland. In a study of 982 cases of pituitarism, he demonstrates rather forcibly that bony development and malformation can more or less be easily traced to the action of this gland. It is interesting to note in his study the marked difference in the types of individuals affected by disorders of the anterior and posterior lobes.

The cases studied and reported by him show the anterior lobe as a direct causative factor in the formation, growth and development of the bony skeleton, the hair and the genitals, while that of the posterior lobe affects principally the metabolic changes in the body.

The records of his cases are so clear cut as to make his classification one for serious consideration.

Disorders of the thyroid have been recognized comparatively a long time, but it has remained for workers of this type to furnish evidence of correlation which bears directly upon the entity of thyroidism. It is certainly now well established that disorders in other glands exert the necessary influence to put the thyroid out of balance—hence a thyroidism, in many instances.



There are several excellent delineations of the results of emasculation in women. It is possible that our greatest field in endocrinology lies in the protection of women thus deprived of their ovarian secretions, until the time arrives when more conservative pelvic surgery will have eliminated this class of patients.

The dysmenorrheas, amenorrheas and menorrhagias no longer belong entirely to the field of gynecology, if we are to study as a routine the endocrine system as we know it. They are becoming prominent links in the chain of symptoms of other disorders.

Little is known of other glands. Much may be expected, however, from study now in progress on the adrenals but our present knowledge is vague.

Endocrinology will make its greatest leap forward when preadolescent types can be classified and treated before the period of development has progressed to a formative period. We should not work as apriori investigators.

Endocrine therapy is going through a stage of enthusiasm which brings criticism unwarranted.

This is because of two reasons: First, the indiscriminate use of these products regardless of justifiable reason and in some cases probably without an endocrine diagnosis at all. Second because of the fact that manufacturers have put together every possible combination to be detailed to the gullible profession.

This is a matter that will, however, adjust itself when the proper conservatism governs our work.

Arch Elkin.

### STANDARDIZATION OF HOSPITALS IN GEORGIA

The profession will be interested to know that in the Third Annual report of the American College of Surgeons that three Hospitals in Georgia have been placed on the approved list as Class A—Georgia Baptist Hospital and Grady Hospital of Atlanta, and the University Hospital of Augusta. This report was made public in Philadelphia recently. The following is the report based upon personal survey of the state hospitals by the Commission of the American College of Surgeons.

"The institutions above proved that they are giving the best of scientific medical care to their patients. Aided by one of the great educational foundations, we have carried on actual visits to hospitals, made by trained medical men, who see working conditions as they are. Our report for 1921 shows a marked improvement in hospital service the country over, and places Georgia in the forefront of states who are active in medical progress. Georgia is to be congratulated on its splendid showing and on the forward looking medical men, hospital superintendents, and trustees who have made this advance possible."

These three hospitals are to be commended by the medical profession for raising their standard to the approved list of Class A. Let us put our shoulder to the wheel and raise other hospitals in Georgia to meet the requirements of this Commission. This means better hospitals and better doctors, which can only spell better medical attention and comfort to the patients.

Pruitt.

### A COMMUNICATION FROM THE CHAIRMAN OF THE PUBLICATION COMMITTEE\*

Dr. Allen H. Bunce, Sec'y.,  
Medical Association of Georgia,  
Atlanta, Ga.

Dear Doctor Bunce:—

If the enclosed lot of papers were taken at random I congratulate you upon character of material you are now receiving for publication in the Journal as these papers are, on the average, much superior to any lot that I have heretofore reviewed. Even in those which are little more than reviews of the literature there is evidence of careful and comprehensive selection of material.

Practically all papers, however, present evidences of carelessness in punctuation, spelling, grammar, and rhetorical construc-

\* The Association owes a debt of gratitude to Dr. McCurry and other members who have given careful painstaking study to the many articles received by the Journal. The second paragraph of his letter is especially pregnant with truth.

A. H. B.



tion. I know personally that at least a majority of the authors are scholarly gentlemen, fully capable of so preparing a paper that it could be forwarded to the printers without editing. I would suggest that you urge authors of prospective papers, through the editorial columns and personally, that articles, before being sent in for publication, be given a final careful revision.

Faternally yours,

W. E. McCurry.

Hartwell, Ga.

Nov. 1, 1921.

### **RESOLUTIONS OF FULTON COUNTY MEDICAL SOCIETY CONCERNING THE DEATH OF DR. FLOYD W McRAE, SR.**

WHEREAS, an inscrutable Providence has abruptly removed Dr. Floyd W McRae, Sr., from promised years of further usefulness;

WHEREAS, Dr. McRae was an early member of the Fulton County Medical Society, then the Atlanta Society of Medicine, and has actively or by example ever been an inspiration to its members and one of its forceful elements;

WHEREAS, Dr. McRae established the structure of his career by energy, ability and personality, rising to the top-most group in American surgery.

WHEREAS, Dr. McRae was an undeviatingly loyal friend, yet forgiving toward his enemies, charitable to the frailties of others, a christian gentleman, one of the strong men of his church;

WHEREAS, his large clientele and multitude of friends will feel it difficult or impossible to repair their loss.

WHEREAS, he was a devoted husband and father and the congenial circle of his domesticity is now permanently broken;

THEREFORE, be it resolved by the Fulton County Medical Society, through its assembled membership, that the Society has lost one of its most distinguished, useful, honored and beloved members;

RESOLVED, that the sympathy of the Society be extended to his patients and friends;

RESOLVED, that to his broken family the Society express sincere condolences and the

hope that in some way their grief may be mitigated, its edge softened by memories of his accomplishments;

RESOLVED, that a copy of these resolutions be spread upon the minutes of the Society and a copy sent to the Journal of the Medical Association of Georgia, copies to the Atlanta daily papers and that a special copy be furnished to Dr. McRae's family.

M. B. Hutchins,

E. Bates Block,

Michael Hoke, Committee.

Aug. 18, 1921.

### **DOCTOR HANSELL CRENSHAW**

1877-1921

In the death of Doctor Hansell Crenshaw the members of the Fulton County Medical Society feel that they have lost one of their most distinguished and beloved members, therefore, this testimony of their sorrow and sympathy shall be placed on the minutes of the Society and a copy sent to his bereaved family.

Allen H. Bunce, Chm.,

E. C. Davis,

C. W. Strickler, Committee.

Adopted by the Fulton County Medical Society, September 1, 1921.

### **NEWS ITEMS**

Dr. R. L. DeSaussure, Commissioner of Health for Brunswick and Glynn County is issuing a very interesting and instructive monthly bulletin covering activities of the Board of Health.

### **Doctor's Exchange**

The Doctor's Exchange, of Atlanta, has been in operation about a year and has won the confidence and support of many of the medical profession in and around Atlanta. They are now adding a Nurse's Registry, which will assist the doctors in securing both graduate and practical nurses. We feel sure the profession will welcome this line of service and will find it helpful and beneficial.

Special efforts will be made to handle all calls from out-lying towns and communities, and doctors are invited to make use of the long distance telephones whenever in need of a nurse. The Doctor's Exchange is at your service any time day or night.

### Ninth District Medical Society

The semi-annual session of the Ninth District Medical Society met in the Chamber of Commerce building at Gainesville, Wednesday September 21st, and was presided over by the President, Dr. H. E. Crow, of Talmo. Dr. J. C. Bennett, of Jefferson, succeeded Dr. A. D. White, deceased, as Secretary-Treasurer.

Invocation by Dr. D. B. Cantrell, welcome address by Dr. J. B. Rudolph, of Gainesville, responded to by Dr. J. H. Crawford, of Martin.

Dr. L. C. Allen read a most interesting paper on Carbon Monoxide Poisoning which provoked a liberal discussion. On motion, a copy of same to be sent to the Editor of the State Medical Journal with request to publish. Mr. T. F. Sellers represented the State Board of Health. Dr. S. R. Roberts, of Atlanta, discussed the treatment of Heart Weakness. Dr. E. C. Thrash, President of the Association, spoke on the subject of organization and medical progress. Dr. J. L. Campbell, also of Atlanta, spoke on the subject of Cancer, using lantern slides. Dr. H. L. Rudolph had for a subject the Treatment of Acute Gastro-enteritis in children and Dr. J. C. Bennett read a memorial paper on Dr. A. D. White. The entire session was full of interest and pronounced by some as the best District Meeting they had ever attended. Dinner was served at Barron's Restaurant, and a most bountiful repast it was.

The next session will be at Toccoa the third Wednesday in March 1922.

At the recent meeting of the State Board of Medical Examiners of Georgia the following physicians were licensed to practice in Georgia, according to announcement from the Secretary, Dr. C. T. Nolan, of Marietta: Drs. Eugene Schreiber, Savannah, Cleo Duke Wilder, Macon, Uldrick McLaws Kieffer, Savannah.

Dr. Jno. T. Pettit, formerly located at Orange, announces his removal to Canton, Georgia, for the practice of his profession.

Dr. Louis C. Rouglin announces his return from New York, and the opening of offices in the Georgia Savings Bank Building, Atlanta,

Georgia. Practice limited to Eye, Ear, Nose & Throat.

Dr. J. E. Paullin announces the removal of his office to Suite 30 and 31 Doctors' Bldg., Atlanta, Georgia.

### ABSTRACTS\*

**Post-Operative Comfort in Rectal Cases**  
DESCUM C. McKINNEY, M. D., F. A. C. S.,  
Buffalo, N. Y.

The writer dealt especially with comfort after operation attained by:

1. Complete evacuation of the bowels accomplished long enough in advance to insure good sleep for the patient the night before operation.

2. Selection of an anesthetic best suited to the operation necessary and the temperament of the patient, gas and oxygen being used most, sacral and local in suitable cases.

3. Special points in technique, with stress laid on the injection of quinine and urea into cut edges for prevention of after-pain.

4. For dressing, use of vaseline-gauze and oiled silk or cellosilk, which are soft, comfortable when in place and easily removed.

5. In after-care, use of morphine very early when necessary; allowing fluids ad libitum; removing all dressing as soon as danger of hemorrhage is passed, so that catheterization is seldom necessary; use of sitz baths, etc.

Any complaint of pain requires prompt investigation and the writer described the causes and his methods of treatment, and asserted that careful attention to seemingly trivial details is the essence of success in securing a speedy and painless cure of rectal conditions.

### Bleeding from the Rectum: Its Significance and Treatment.

JOSEPH F. SAPHIR, M. D.,  
New York, N. Y.

The writer said that blood passed through the anus from any part of the gastro-intestinal tract is a most alarming symptom. The nearer the source of the bleeding is to the anus the brighter and fresher the blood is, and the fur-

\* From proceedings of the American Proctologic Society, June 3-6, 1921.



ther away, the darker and more clotted it is. The general appearance of the patient is often an index of the importance and severity of the bleeding. He described as sources, internal hemorrhoids, ruptured external hemorrhoids, fissures and ulcers, prolapse of the rectum, polypi, multiple ademonata, intussusception of the sigmoid, chancres, chancroids, and condylomata, villous growths, systemic diseases as malaria, scurvy, tuberculosis, etc., hemorrhagic proctitis and carcimona.

He then considered primary and secondary operative hemorrhage describing how such accidents occur, how they may be avoided, and how treated; and laid particular stress on the danger and deceptive character of concealed secondary hemorrhage, the possible need of hypodermoclysis or transfusions in its treatment.

He said that bleeding from the rectum is so common that many patients neglect it so long before consulting a physician, and the physicians when consulted, neglect adequate examination so long, that serious hemorrhage and profound anemia often result before proper attention is given to it. For similar reasons carcimona is often overlooked till it is too late. And he concluded that the fault lies in the lack of proper teaching of digital and proctoscopic examination, so that students are sent out from medical schools unprepared to interpret the importance of significance of rectal bleeding, and unprepared to give the sufferers the proper care and treatment.

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#### **Relation of Pulmonary and Ano-Rectal Tuberculosis to Fistula-in-Ano.**

SAMUEL G. GANT, M. D.,  
New York, N. Y.

The writer said that fistula-in-ano is seldom associated with pulmonary tuberculosis, and that of five thousand fistulae, operated on by him, less than 10 per cent were tubercular. True tubercular sinuses are usually curable by operation unless the patients are remarkably devitalized, and lung involvement and skin affections do not result from a cure as some believe. Fistulae, simple or tubercular, heal much slower when complicated by pulmonary

tuberculosis and when cauterized, than when treated by mild stimulants like methylene blue 10 per cent. Tubercular sinuses associated with extensive involvement of mucosa and peri-anal skin may not heal as they are usually secondary to serious lung involvement.

Tubercular fistulae are diagnosed by their large, irregular openings and sinuses, undermined skin, abundant rice water-like discharge, and by finding tubercle bacilli in pus or tissue taken from the infected area.

Palliative treatment, hygienic measures, forced feeding, etc., help to build up the patient for operation and prolong life, but do not cure tubercular sinuses or ordinary fistulae when the patient has pulmonary tuberculosis. Operation is the procedure of choice when the patient has reasonable vitality. The technique consists of incising tracts and trimming of over-hanging edges of mucosa and skin, and then applying the cautery to raw areas to forestall extension of infection by way of the lymphatics.

Etherization stimulates latent and active foci in the lung and is often responsible for death. The writer invariably employs local anesthesia in this class of cases, keeps the patients in the hospital but a short time and, thereafter requires them to spend their time in the open air, and observe the usual hygienic measures prescribed for patients afflicted with tubercular foci in the lungs.

The prognosis is fairly good except in cases where the patient is almost exhausted by lesions in the lung and bowel, but healing is slow whether the tubercular lesion is local or involves both the peri-anal region and lung.

American Social Hygiene Association  
October 1, 1921

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#### **SPIROCHETA PALLIDA IN EXCISED TISSUE AND AUTOPSY MATERIAL**

By George R. Lacy, M. D., and Samuel R. Haythorn, M. D.

**American Journal of Syphilis**  
Vol. V, No. 3, July, 1921.

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The authors became interested in the question of the occurrence of spirocheta pallida in dead tissue, when actively motile spirocheta were



found in the blebs and organs of a stillborn congenitally syphilitic infant which had been kept in a refrigerator twenty-six hours prior to the autopsy. They conducted experiments in order to determine the time during which the spirocheta pallida remain alive in dead tissue, the criteria being the motility of the organism and its ability to transmit the disease to a new host.

Their results are summarized below:

Spirocheta kept in serum or moist tissue, either human or animal, may retain slight motility as long as three months or more. Reliable dark-field examinations can be made on tissues or fluids collected several hours previously, provided they are kept moist and cool. Complete drying is probably fatal to the spirocheta pallida, since each of the habits used by the experimenters failed to develop syphilitic lesions when inoculated with dried spirocheta. This is in accord with the work of Neisser. Spirocheta pallida may, and in the case of the authors did, remain virulent in autopsy material for twenty-six hours or longer.

### **SYPHILIS OF THE NERVOUS SYSTEM IN CHILDREN.**

Edward Livingston Hunt

*American Journal of Syphilis*

Vol. V, No. 2, April, 1921.

In the congenital type of syphilis, the clinical signs seem to point to a more general involvement than is the case in the acquired type. The involvement of the nervous system occurs oftener in the congenital cases. Therefore, the lumbar puncture becomes an essential part of the examination of every case of unsuspected syphilis characterized by nervousness, backwardness, and defectiveness.

Juvenile paresis is the most frequent of all the various forms of syphilis seen in children. It is very similar to the adult type.

The author gives a number of case histories. He comes to the following conclusions:

1. The condition is common.
2. The nervous system may be involved early.
3. A lumbar puncture may be of great help

and should be a routine part of the examination of every nervous child.

4. Syphilis in children necessitates a blood and spinal fluid examination of the parents and vice versa.

5. Treatment is not very promising.

6. The stigmata are not necessary nor even frequent.

### **SYPHILIS IN PREGNANCY**

*The American Journal of Obstetrics and  
Gynecology.*

Vol. I, No. 7, April, 1921.

Now that the Wassermann test has been accepted as conclusive means of diagnosis, every case of pregnancy should have a routine serological examination even when no suspicious symptoms are present. This might be regarded as a prophylactic measure. Gonorrheal ophthalmia is combated by a routine instillation into the eyes of every newborn child and in instances failure to do so is punishable. The prophylaxis of diphtheria is another recent development. It is said that at least 40 percent of syphilitic women present no objective symptoms nor are they aware of their condition. This accounts for the widespread character of the disease and its innocent propagation. Hereditary syphilis is one of the most important factors responsible for many chronic diseases and the obstetricians must consider themselves responsible to a certain degree. The recent work of J. Whitridge Williams and others opens a field for broad study. If a study of a series of consecutive cases shows positive Wassermann reactions in four or five per cent. it is probable that the distribution is as extensive as is usually assumed. A more extensive study of this subject will do much to reduce the incidence of this disease.

### **SYMPTOMATIC TREATMENT OF PNEUMONIA**

The factors that may cause dyspnea are discussed by J. H. Means and A. L. Barach, Boston (*Journal A. M. A.*, Oct. 15, 1921). Dyspnea will arise whenever the pulmonary ventilation called for by the life processes at the moment exceeds the quantity of air that the pul-

monary bellows is mechanically capable of delivering with ease. The respiratory center wishes to maintain a constant alveolar carbon dioxide tension. To do this ventilation must increase in like proportion to carbon dioxide output. In pneumonia, the metabolism will, as in the normal, be one of the factors determining the volume of the pulmonary ventilation; an increase in metabolism due to the disease will call for an increase in ventilation exactly as the elevated metabolism of muscular work did in the normal person. The metabolism of the pneumonia patient may be expected to be higher, even while he is at complete rest, than it would be under the same conditions when he was well. He will, in other words, have a metabolic need for increased breathing or hyperpnea. If in a portion of the lungs a proper gas exchange cannot take place, in order to maintain blood carbon dioxide tension at a normal level, the normal portion of the lungs must be over-ventilated. Impairment, then, in the respiratory function of any portion of the lungs, if it leads to a mixture of aerated and unaerated blood, will be a factor demanding hyperpnea. Other causes are an insufficient circulation rate of blood flow; and anoxemia. The lower the vital capacity, the more will a patient have to increase his ventilation by an increase in rate at the expense of depth. That the vital capacity is reduced in pneumonia is certain. Whatever the cause, it will have the effect of necessitating a rapid, shallow type of breathing. In the treatment of these conditions, the possible lines to pursue would seem to be either to decrease demand or increase supply of ventilation. Two procedures which may be expected to diminish the need for ventilation are the administration of alkali and the therapeutic administration of oxygen.

Bicarbonate should be given only in amounts sufficient to turn the urine alkaline to litmus. If pushed farther than this, it may do harm by producing alkalosis. Oxygen should be given with one of the modern types of apparatus and often nearly continuously by a specially instructed nurse. Its continuation is to be governed by the effect on the cyanosis and the comfort of the patient. These measures are supplementary to specific therapy. When used, however, they may be expected to spare the

patient several avoidable burdens and leave him free to devote his entire energy to the fighting of his infection, thus theoretically, at least, improving his chance of recovery. .

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#### USE OF DRUGS IN NEUROLOGY AND PSYCHIATRY

Of the various symptoms which demand attention from the neurologist and the psychiatrist, C. Macfie Campbell, Boston (*Journal A. M. A.*, Oct. 15, 1921) says the most common are pain and distress, sleeplessness, agitation and excitement. These are the symptoms for which the physician has recourse to drugs, while the complex, underlying disorders are recognized to be beyond the reach of such simple methods of treatment. As for the treatment of pain and distress and sleeplessness, the danger of a purely symptomatic treatment is well known. They are merely indicators of the underlying disturbance, and it is the business of the physician not to confine himself to the warning sign, but to penetrate to the underlying disorder. Merely to remove the disconcerting symptoms involves the double danger of neglecting the fundamental trouble, and of developing an ignoble dependence on the drug. But symptoms deserve some attention on their own account, and pain is the one which is the most insistent. For conditions of mental distress with agitation, barbitol in comparatively small doses is a very useful drug. Paraldehyd is the drug which gives the nearest approach to a normal sleep, but owing to its disagreeable odor, the coal-tar derivatives have been much preferred, and of the series barbitol is the most uniformly satisfactory. If in psychiatry the use of drugs is somewhat limited, it is largely because in these complex disorders the chief weight in the treatment must be laid on the personal relationship between physician and patient, on the organization of the nursing personnel, and on the atmosphere of the hospital with its occupational and recreational elements. It is in virtue of the presence of these factors that treatment in hospitals is, as a rule, to be recommended in preference to treatment of the patient at home.

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## A REVIEW OF THE YEARBOOK OF ANAESTHESIA AND ANALGESIA

W. A. Selman, B. S., M. D., F. A. C. S.

A "review" of a book of five hundred pages—a compilation of articles on special phases of Anaesthesia and Analgesia by world-known men from the world around, is but an "appetizer" to the "square meal" enjoyed only by those who take time to read and digest each in detail—Valuable to the surgeon, invaluable to the anaesthetist!

In this brief resume I shall first discuss some of the more common general anaesthetics, and then some of the special, more particularly as pertains to their special adaptability to certain types of cases. As ether is more generally used than any anaesthetic agent in America, I shall first call attention to the practical article on "The Open Method of Etherization" by Isabella C. Herb, M. D. of Chicago. I endorse her article most heartily and quote her conclusions:

1: When ether alone is administered the induction of narcosis by the open method of etherization is comparatively comfortable.

2: With the open method of etherization, the blood is well oxygenated through the narcosis and the patient leaves the operating table with normal respiration and normal color.

3: Barring operations which call for insufflation anaesthesia the open method is suitable for any patient or any operation in which ether is the anaesthetic of choice.

4: Experimental evidence shows that with the open method of etherization there is less injury to the lung epithelium than when the closed or semi-closed methods are employed.

5: Trouble during induction or maintenance of anaesthesia is invariably due to faulty technic and not to the open method of etherization.

6: The conservation of body heat narcosis is of greater importance than warming the ether vapor.

### Cholorform.

At first thought it is hard to condemn an anaesthetic agent popular among physisians, and more so among the laity. However,

when one sees that agent head the casualty list year after year it is time to look around for safer methods. American anaesthetists have largely gotten away from chloroform, but thousands of physicians still consider it a sine qua non in obstetrical practice. In England, chloroform, either pure or in some combination, as the A. C. E. mixture has long held a prominent place. As a result, I quote from J. F. W. Silk of London, England as Consulting Anaesthetist to the Malta Command in the late war. "There is one negative Point, however, upon which I hope my opinion may be largely supported, i. e., that in military surgery at home the routine use of pure, unadulterated, or as our American colleagues call it, Straight Chloroform, as a first choice is to be avoided as much as possible. Briefly stated, my chief reasons are the following:

1: In the hands of the most skilled the mortality is relatively high. I believe it is something approaching one in two thousand. In military work I do not know exactly what the proportion may be, but I will give you some figure: Of the deaths under anaesthetics which have been reported to me since January 1917, at least 55%, and probably more, were due to or occurred under chloroform used in an undiluted form, and in many other cases the chloroform was by far the predominating drug. One may admit, of course, that in many of these cases the use of chloroform was almost imperative, and that in many the condition of the patient was such, that in all probability he would have died under any other anaesthetic, but such admissions do not really affect the figures. I would further point out that of that 55%, in fully 28% death occurred before any operation had commenced.

2: In the course of my wanderings I have been struck by the fact that of the most earnest advocates of pure chloroform, only a comparatively small number really know how to give the drug properly. As an example of this, let me instance the gentleman whom I found pouring drachm doses of chloroform upon a lint covered Schimmelbusch's mask, over which, and his retaining hand he had thrown another sheet of lint about the size of a pocket handkerchief. From the same



hospital I received complaint of the impurity of the chloroform which, I was told gave rise to a great deal of lividity.

Although I object to the use of undiluted chloroform as a first choice, for routine work, it must not be supposed that my condemnation extends further than this. I fully recognize the value of this drug for many cases, and I would even say that when sufficiently diluted down with ether in the shape of one or the other of the mixtures and administered carefully by the open method it forms a very simple and admirable method of inducing anaesthesia previous to the continuous use of ether.

#### **Local Anaesthesia.**

Louis L. Hirschman, M. D., of Detroit, Michigan, an enthusiast in local anaesthesia in civil life, tried it out at Base Hospital No. 17 with the following summary of results:

"An operative procedure which can be done just as thoroughly under local anaesthesia as under general anaesthesia, should be performed for the following reasons:

- 1: It is safer.
- 2: It can be performed more rapidly.
- 3: Shock is absent.
- 4: Fewer assistants are required.
- 5: After pain is absent.
- 6: Patients can take nourishment immediately.
- 7: Recovery is hastened.
- 8: Convalescence is shortened.
- 9: There is no fear of anaesthesia.
- 10: Less handling of the tissues means less danger from sepsis.
- 11: The mental attitude is better toward, local than general anaesthesia, which materially assists in his convalescence, and in a ward is reflected on his fellow patients.
- 12: Post anaesthetic complications are absent.

In no surgical center has anaesthesia and analgesia received more thorough research than at Lakeside Hospital, Cleveland, Ohio, by Dr. Geo. W. Crile and his co-workers, and no where have more life saving measures had their origin. An epitome of the many experiments is not sufficient for a clear concept of the conclusions. Every link of the chain must be studied and then put into practice before a full realization of how many

lives might be saved by the selection of the anaesthetic alone. To quote his conclusions: "For the bad risk nitrous oxid anaesthesia is to be preferred to ether and that analgesia with local anaesthesia should be employed, with general anaesthesia only when it is demanded by certain phases of the operation."

For special pathological conditions I quote from the following:

1: In Status Epilepticus, chloroform should be administered early in practically every case. Leigh F. Robinson, Raleigh, N. C.

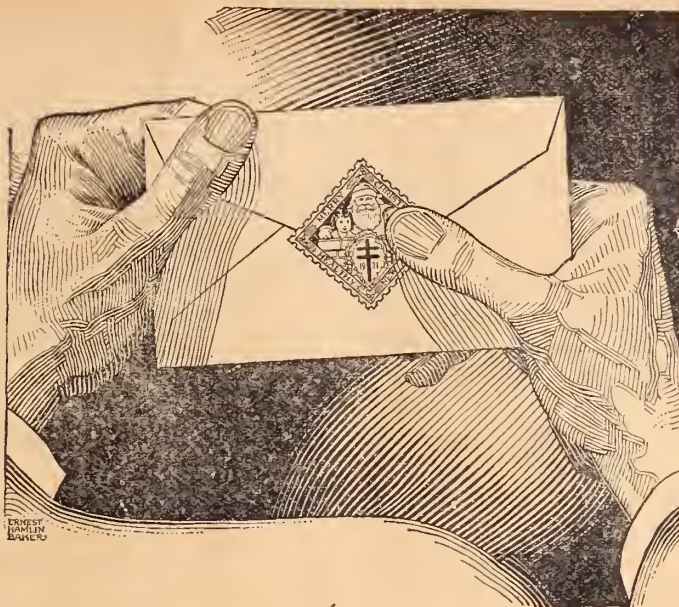
2: Alcoholics, before being anaesthetized should have their daily quota of alcohol, and Drug Addicts, their daily quota of their drug. F. H. McMecham, Year Book 1917-18.

3: Valvular heart lesions that are perfectly compensated and with a reasonable margin of safety offer very little danger from the anaesthesia. When, however, compensation is broken or the margin of safety is very narrow, the danger of anaesthesia increases markedly. Lesions of the aortic valve are more serious than lesions of the mitral valve and stenosis is more serious than simple regurgitation. Endocarditis and degeneration of the myocardium offer much more serious risks than chronic valvular disease, and I have a great fear of Angina Pectoris as a complicating factor." Frank L. Richardson, M. D.

In the toxemia of pregnancy we have to deal with not only one human life but with two—Mother and Babe. Whatever measures will reduce the hazard to both are worth while.

Wm. M. Brown of Rochester, N. Y., advocates local anaesthesia in terminating pregnancy by the Caesarian route in the following conditions:

1: Patients with advanced cardiac disease in whom there is actual or impending muscular relaxation. These cases, if there is actual or fair compensation will often go, under careful hygiene, to the final weeks of pregnancy, but these subjects are in no condition to undergo even the shortest labor, nor is the relaxation of a general anaesthetic safe. The child is viable and active, the mother if



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relieved of the strain of her pregnancy has a prospect of fair health for some time. Such patients are entitled to abdominal delivery under local anaesthesia.

2: Patients suffering from severe toxemia, hepatic, renal insufficiency and impending eclampsia, local instead of general anaesthetic should be preferred.

3: Pulmonary Tuberculosis.

J. Clarence Webster of Chicago and H. H. Trout of Roanoke, Va., have also given special attention to local or combined anaesthesia in Caesarian sections and give it their full endorsement.

Many other men, foremost of the profession, have valuable articles on spinal, sacral, para vertebral, local and other special forms of anaesthesia to meet the requirements of special operations or pathological conditions, all of which contain valuable information, but to quote from each would unduly prolong this article. Yet to carefully read them all helps materially to mature ones judgment as to what anaesthetic best suits certain conditions, always administered by the best anaesthetist available, gives not only the surgeon but better still the patient the benefit of the most modern methods of relief.

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#### DIAGNOSTIC AND THERAPEUTIC ASPECTS OF LATE SEQUELAE OF GASTRIC SURGERY

Factors contributing to the failure or success of the surgical treatment of patients with chronic benign ulcer of the stomach or of the duodenum are discussed by George B. Eusterman, Rochester, Minn. (Journal A. M. A., Oct. 15, 1921). He says that failures after medical treatment are taken as a matter of fact, but failures after operation are often given undue prominence, a psychologic fact of considerable importance. In view of favorable end-results by almost purely surgical procedures and the act that a secondary operation was necessary in only 228 cases of the 6,402, Eusterman finds it difficult to follow the logic of physicians who argue that gastro-enterostomy is inherently faulty. The average duration of symptoms in ulcer-bearing patients was nine and one-half years, and such complicating factors as pyloric obstruction, recurring hemorrhage

and chronic perforation, singly or in combination, were present in 35 per cent. Total and free acidity was reduced in from 40 to 60 per cent. of cases following gastro-enterostomy. Eusterman's answer to the charge that gastro-enterostomy is an unphysiologic procedure is that at least 15 per cent. of all pyloroplasties eventually prepare a rich soil for a highly successful gastro-enterostomy. Therefore, it is reasonable to believe that time and an enlarged experience will temper the present laudable enthusiasm for pyloroplasty. The prospect for cure following a successful operation has too frequently been forfeited through the gross dietetic indiscretions of the neglected patient. Many functional derangements of organs other than the stomach, often of major importance, that surgery cannot be expected to cure, require the cooperation of the internist for their alleviation. All this emphasizes the necessity of friendly cooperation between the internist and the surgeon. Unquestionably, the best interests of the majority of ulcer-bearing patients are conserved by such combined efforts. The pooling of all therapeutic resources will prevail over the present tendency of surgeons to institute newer or more radical measures in surgical technic for the cure or alleviation of a widely prevalent and increasing disease.

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The Journal is an open forum for all members of the Medical Association of Georgia. No member is too young and none is too old to be given a hearing. You may help greatly by sending in book reviews, case reports, news items, descriptions of new diagnostic methods and therapeutic procedures.

—A. H. B.



Merry Xmas and Happy New Year

# THE JOURNAL

OF THE

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### ORIGINAL ARTICLES

#### SOME OBSERVATIONS ON GOITER BASED ON A ROUTINE STUDY OF EIGHT HUNDRED CONSECUTIVE THY- ROID PATIENTS.\*

Edward G. Jones,\* M. D., Atlanta, Ga.

Our thyroid histories cover information on some forty points. Of course it will be impossible to consider more than a few at this time. Practically all the recorded data have been collected either by myself or by my associate, Dr. Chas. E. Waits, so that there is a minimum of error from the standpoint of the personal equation.

It is evident there is much less thyroid pathology in our part of the country than in many other localities, even in the U. S. On the streets of Cleveland or Chicago or Milwaukee one will meet perhaps five or ten times as large a ratio of thyroid enlargements as he will meet in almost any southern city.

**RACE.** There are thirty-one negroes in the series, a percentage of less than four. We believe that thyroid pathology is less prevalent in the colored than in the white race, but we do not believe these figures represent the true race incidence, because most of the patients under discussion are private patients. An analysis of equal numbers of persons in the two races will soon be undertaken by us with a view of arriving at a more definite conclusion. A somewhat cursory review of the individuals in one or two colored institutions (not included however in this study) excite the suspicion that goiter is considerably more prevalent in this race than the figures just quoted indicate. It is also to be remembered

that the colored population of Georgia is about one-half the white population, which circumstance would have a bearing on the percentage of occurrence. The proportion of exophthalmic cases is large in our colored list.

**SEX.** Our series includes sixty-six males, a little more than eight per cent. This probably represents the approximate truth, though it is considerably lower than the traditional text-book information. The non-toxic thyroid so common among young women is almost unseen among men. This circumstance is responsible for the fact that there is a larger percentage of the toxic type among men than among women. Excluding the goiter of adolescence the ratio of toxic to non-toxic goiters among men and women is about the same.

**RELATIVES.** When the inquiry includes aunts and cousins almost exactly twenty-five per cent. of the patients had one or more relatives with goiter. When the inquiry is restricted to the immediate family this percentage is cut in half. The sister of the patient has been more frequently affected than the mother. A non-toxic thyroid patient is twice as apt to have a relative with goiter as a toxic patient. Of course these observations as to relatives are not in accord with the statistics on the same point in localities where goiter is endemic.

**WATER SUPPLY.** We have been totally unable to associate the occurrence of goiter with drinking water as an etiological factor. Efforts to show that thyroid pathology exists in a significant degree among the inhabitants of any particular county, or any particular watershed, or any particular major geologic formation in the state of Georgia, have been in no way conclusive. Quite a proportion of our patients have been charted

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.

\*Deceased.



with particular reference to this point with negative results.

**PELVIC DISEASE.** There has long been tradition that pelvic disease may be responsible for thyroid enlargement. A careful study of our cases with this point in view does not justify the inference that this is true. Except for the fact that thyroid hypertrophy is admitted frequently to cause increased ovarian activity, and increased ovarian activity may be a part of pelvic disease, no significant sequence of goiter on pelvic disorder as compared to the sequence of goiter or any other debilitating affection, such as nephritis, pellagra, etc., is developed in our series of patients. It is true that of the women with toxic goiter (with and without exophthalmos) nearly one-third gave a history of some sort of pelvic disorder, ranging from dysmenorrhea and simple retroversion to pus tubes and fibroid tumors. Nevertheless this information must be considered in connection with the fact that nearly all the women in this class were married and most of them had borne children. It is probable that one-third of any considerable group of married women will have some sort of pelvic trouble, so that the number of goitrous women in this series with antecedent pelvic disorder cannot be said to be suggestive.

Moreover, in view of the current idea that menstrual activity influences the size of a thyroid already enlarged, and in view of the further fact that women are inclined to look for abnormal phenomena in connection with any organ or function during menstruation, it is rather surprising that only twelve per cent of these women believed that there was any change in the size of the growth during the menstrual period.

**AGE OF INCIDENCE.** In the exophthalmic group the goiter was first noticed at 27.8 years. More than fifty per cent occurred before twenty-five. Twenty per cent occurred before eighteen; and an additional seven per cent are thought to have appeared at puberty, disappeared, and re-appeared at ages ranging from twenty-six to forty-nine. Thirteen per cent of this class thought the symptoms antedated the enlarged thyroid, while thirty-five per cent thought the goiter

and symptoms appeared simultaneously; so that only about fifty per cent noticed the goiter before the symptoms.

In the class of patients with toxic symptoms without exophthalmos the interval between the appearance of the goiter and the appearance of the symptoms, is considerably longer than is the same interval in exophthalmic patients.

**MALIGNANCY.** Only three cases of carcinoma are recorded in this list. Two of these did not come to operation. One of the two is dead; the other was seen recently and is beyond operative hope. The third patient was operated on ten months ago. There was every clinical evidence of malignancy except that the patient was only twenty-one years old. Examination of the thyroid tissue and of the related lymphatic glands (removed at operation) by very competent pathologists in Atlanta and New York confirmed the suspicion of malignancy. Extensive use of radium needles was instituted. This patient lives in Florida; she is so thoroughly convinced that she is making satisfactory progress that we have been unable to get her to return for observation since she went to New York in August 1920, for confirmation of our diagnosis and for radiology.

**RECURRENT NERVE.** Five years ago I presented a report before this body in which I related temporary post-operative aphonia in three instances. All the patients had recovered the power of phonation in from four to twelve weeks, so that the nerve was probably not cut in any instance. It has now been some six years since we have had any trouble of this kind. This is an accident which will seldom occur after one has acquired considerable experience, but is capable of affording very great embarrassment to occasional operators.

It is probable that the nerve regains its function after pinching or stretching; it seems not to do so following ligation. Moreover "Even if the nerve has been severed or destroyed completely . . . the function eventually returns due to the compensatory efforts of the uninjured cord so that while any trauma to a recurrent nerve is serious, the effects . . . will be only temporary."

Of course we have observed many patients following thyroidectomy with temporary disturbance of voice, because the dissection is near the nerve and the trachea, but if the patient speaks even once following operation there need be no concern about the nerve. To avoid edema of the trachea and injury to small nerve filaments which enter it, it is well when feasible not to make a clean dissection encircling the front and sides of the trachea.

**MULTIPLE OPERATIONS.** From the beginning of our experience we have followed the double resection rather than unilateral lobectomy in diffuse enlargements. Only on rare occasions has this rule been disregarded, and then because, when operation had been undertaken on a bad risk, it seemed unwise to tax the patient with resection of the second lobe. And, proceeding on the idea that in toxic goiter the patient is suffering from altered secretion or too much secretion, there has been no hesitation to sacrifice a maximum amount of tissue on both sides. Acting under this plan we have not been troubled with recurrences. Those few patients whose second lobe was left deliberately, though reluctantly, have not improved to the degree desired, but have become so much better that they have usually declined a second operation. Furthermore, the conviction that the improvement in these patients compares unfavorably with that of those who have had the desired ideal amount of tissue removed cannot be escaped. This statement comprehends the assumption that these few patients were, as a class, the most seriously affected by the disease, and therefore might be expected to get the least benefit from any treatment.

There is a class of patients, however, upon whom it is wise to operate three or even four times before one's work has been completed. This statement refers to those extremely toxic individuals who can tolerate only a little punishment at a time, and who can frequently by means of rest and graduated operative interference be brought to an almost unbelievable degree of improvement. The ligation of a single superior thyroid may be as much as ought to be done at one time. Later the ligation of the second superior thyroid

may be followed by a gain of weight and lessening of other disturbing symptoms, which will make a later partial bilateral thyroidectomy reasonably safe. Sometimes, as already indicated, a resection of the second lobe may be wisely postponed to another time. We have come to look upon this graduated approach to the final ideal as of the utmost help in handling these patients safely. We have had no deaths from ligation, and no deaths from thyroidectomies following ligation. We cannot escape the conviction that at least some of the patients whom we have thus brought safely thru the final thyroidectomy, would have died under a less conservative plan of management.

**BLOOD PRESSURE.** The blood pressure among these patients ranges from 90 to 240. We have come to look upon the blood pressure in thyroid disease as an incident to the condition of the cardio-renal apparatus, rather than a consequence of the thyroid secretion itself. In other words there has been nothing significant in the blood pressure of the average thyroid patient without some of the usual explanations for such variations from normal. It is iconoclastic to intimate that the thyroid secretion does not affect the blood pressure. Nevertheless this has been our impression for a number of years, and I cite you to the recent observation of E. C. Kendall as follows: "When this experiment (intravenous injection) is tried with pure crystalline thyroxin it is found that there is no effect on the blood pressure." He believes that the conflicting results obtained by various investigators are dependent upon impurities in the chemical substance used; at least that a rise or fall in the blood pressure, if demonstrated, is not due to the actual constituent of the thyroid gland.

**ACTIVE CONSTITUENT.** It is rather strange that the definite chemical products of only two of the internal secretory glands have been isolated. These are the active constituents of the adrenal and of the thyroid. In 1914 Kendall identified in the thyroid a crystalline substance containing 65% iodine, to which he gave the name thyroxin. Its preparation is much more difficult than that of epinephrin.



One of the most outstanding phenomena following administration of epinephrin is the quickness and the short duration of its action. In sharp contrast, it is found that the response to thyroxin does not begin until after the elapse of several hours, and the effect of a single injection is continued for at least twenty-four days. Plummer shows that the maximum effect is reached about the tenth day with patients with myxedema.

Definite headway in pituitary and ovarian therapy for instance, cannot be expected from the use of the varying mixtures and extracts of these glands, but will come only after the actual isolation and identification of the active constituent of each of them.

**MORTALITY.** The price of a low mortality in toxic goiter surgery is infinite attention to detail as well as the exercise of the very best judgment of which one is capable. A most painstaking pre-operative survey, a really dependable inventory of the patient's physical resources, an unwavering resolution not to be hurried into an operation, the courage and the ken to do no more at one time than the patient can bear, trained assistants so that no moment will be lost during operation, the discriminating selection of the anesthetic—all are essentials which if disregarded will cost lives which need not be lost.

Our mortality in toxic goiter is less than one per cent. Our mortality in the whole operative series is 1.4%. Our best record has been 155 operations between deaths. Our mortality during the past year is 8-10 of one per cent.

**BASAL METABOLISM.** The basal metabolism or mineral heat production of a fasting individual, as can be readily estimated by several types of apparatus now obtainable, has come to occupy a well defined place among the clinical data concerning thyroid function. In its determination is involved a tedious and exacting technique, the details of which must necessarily be scrupulously observed if reliance is to be placed in the findings.

Kendall and Plummer have demonstrated that in administering thyroxin, the active element of thyroid secretion, the basal metabolic rate increases in exact proportion to

the dose administered. Boothby states that aside from the rarely seen acromegaly, hyperfunction of the thyroid is the only affable condition in which the rate is appreciably and consistently above normal. The converse is true of hypothyroidism and the occasional hyperpituitarism.

Our experience is not yet sufficiently extensive to allow the deduction of broad conclusions. We are impressed that one cannot afford to be without the information obtainable by this method. The Goetsch test is less reliable in our hands.

### DISCUSSION.

DR. W. H. LEWIS, Rome: I am sorry that Dr. Jones did not have more time to go into details. I have been extremely interested in what he says of hyperthyroidism in negroes. Of about three thousand cases that we had at Rochester, Minnesota, I do not remember seeing but two cases of exophthalmic goiter in the negro. We came to the conclusion that the negro is not very subject to exophthalmic goiter. I do not know whether Dr. Jones' cases were of the exophthalmic or toxic type. The possibility is that many negroes do not get to that part of the country, while the white people concentrate there to secure the services of those who are doing goiter surgery.

Many surgeons are very apprehensive of damage resulting to the vocal chords as a result of the thyroidectomy, and they may often save themselves much embarrassment if they will have the vocal chords examined preceding the operation. The pressure of the goiter may have resulted in a gradual paralysis of the chord, for which nature compensates so satisfactorily that it is not suspected from the tone of the voice until the interference of the operation produces so much disturbance that the patient suddenly becomes hoarse. The knowledge that the cord is paralyzed may be worth a great deal on such occasions.

There is one particular thing which should be brought out, and which can not be emphasized too forcibly, namely; judgment in regard to decision for surgery in thyroid cases. A very mediocre surgeon can get along with a low mortality if he uses good judgment, but the most skillful operator with poor judgment may lose many cases. The ordinary mild thyroid cases will tolerate surgery very well, but the acute cases must be approached with great study and caution, otherwise a fatality may result, which will be wrongly attributed to the operation, but which is really due to the precarious condition of the patient at the time. Proper judgment can only be gained from long experience and the careful study of what may seem insignificant data. The surgeon, attending one of the large goiter clinics, sees only the operation, which may be the result of weeks or months



of preparation, and leaves with the impression that thyroid surgery is simple.

DR. L. C. WRIGHT: In regard to toxic thyroid, it seems to me it can very well be explained in the light of recent observations in regard to the theory of the thyroid secretion being called out through stimulating the sympathetic nervous system with the idea the thyroid substance will act as a hormone in increasing the power and development in the organism. It has been observed recently in our soldiers returning from France, who were subjected to terrific stimuli, there is a considerable incidence of toxic thyroiditis, presumably due to the increased activity of the gland through the reflex stimulation of the sympathetic nervous system.

We know that the negro is not as highly organized as the white person. We assume that he is not as highly organized as the white man, and his reflexes are not as stable. His reaction time is not as quick, and we may assume the reason he does not show toxic thyroid more often is because he is not subjected to the reflex stimuli that comes to the white man under the stress and strain of modern conditions.

DR. L. C. ALLEN, Hoschton: I have run across two or three cases of myxedema in people who have had thyroidectomy, and I would like to ask Dr. Jones if he has any information on that subject, or any figures to give us as to the probability of a thing like that occurring, and also, if there is any procedure which surgeons can adopt to prevent such a result as that.

DR. WILLIAM N. ADKINS, Atlanta: I would like to ask Dr. Jones his opinion of the cause of exophthalmos in hyperthyroidism. Bandler in his book states that in his opinion it is not the thyroid that is the cause of the exophthalmos but the accompanying hyperpituitarism of the posterior lobe.

DR. GEORGE L. ECHOLS, Milledgeville: I would like to say that the mental side of these toxic goiter conditions is of considerable interest. Sattler has written a paper on this subject, and his studies indicate that the insanity associated with toxic goiter is of a stimulated type, and he says, "There is no typical hyperthyroid psychosis, but the present tendency is to ally the mental phenomena to the manic-depressive group." In the last few months I have had two cases of this sort; one of the exophthalmic type, and another one of the goiter without the exophthalmic symptoms. Both of these cases appeared to take on the reaction described by Sattler. We were impressed by the apparent stimulated condition of these patients. As suggested by Sattler, both of these cases were put on Tinct. of Belladonna for the purpose of checking the secretions, and both quieted down. In both of our cases we had noticeable heart disturbance associated with the use of the Belladonna.

DR. E. G. JONES, Atlanta (closing): I hope you gentlemen paid particular attention to what I said about true conservation in work. I tried to say in my paper the same thing that Dr. Lewis has said, namely that a poor surgeon, with good judg-

ment, can get away with operations on thyroid cases, but a few lapses in head work will cause him to have a high mortality before he knows it. I do not hesitate to say, that these thyroid patients tax my judgment and mental resources more than all my other surgical work put together.

With reference to colored people, a cursory examination would seem to show that among the adolescent colored girls in Atlanta—and I have not finished this examination—there is more thyroid enlargement than statistics would indicate. I do not think 4 per cent. and 8 per cent. as showing the relation of white and colored people in the state represents the incidence of goiter in adults. I think it is less common among colored people; and we are proposing to inaugurate an investigation which will really be worth while in reference to that matter.

In reference to the remarks of Dr. Lewis, I will say that there is a high ratio of toxic goiters among white people. I think many colored people may have goiter without symptoms.

I am well aware of the suggestion made by Dr. Adkins in regard to the cause of exophthalmos, but I cannot give any definite information in regard to it, nor do I think any one else can at the present time.

As to the question of Dr. Allen, I do not know of any patient who has developed myxedema subsequently. It ought to be said with circumspection that a person can get along with very little thyroid tissue. I have heard of some patients who were said to have myxedema following thyroidectomy, but upon investigation I found they did not have it. We have now what we consider a reliable test and that is the estimation of basal metabolism. One of the rules one should follow in toxic thyroid surgery is not to be in a hurry in doing the operation.

## CRETINISM—EARLY DIAGNOSIS

### A Communication.

George L. Echols, M. D., Milledgeville, Ga.

At the 1921 session of the Medical Association of Georgia held in Rome, the writer had occasion to discuss an interesting paper on Endocrinology; and in this discussion the early diagnosis of Cretinism was urged.

While my experience with this condition has been associated mostly with the advanced stages, still I have felt that the disease should be recognized early, and the treatment begun in time to permit the individual to have an opportunity to develop both physically and mentally. If we will recall to our minds the infants at birth or a few weeks or months after birth who appeared abnormal,

and later proved to be Cretins, then we have the idea which the writer has in mind.

In my discussion I referred to the work of Dr. A. F. Tredgold, 25 New Cavendish Street, W. London; in which he states, "On the whole, I think it may be laid down that, whilst in some cases cure may take place if treatment be initiated not later than the third month, should the first year be allowed to pass without Thyroid administration, the cretin, although improving to some extent, will seldom make up his mental areas."

I wrote to Dr. Tredgold in regard to the above, and especially in regard to the early diagnosis; and I wish to quote from his letter to me dated 3 July, 1921:

"Although the complete and typical cretinoid picture is not usually present until the child is two, three or more years old, yet I think there is not the slightest doubt that signs and symptoms of cretinism of sufficient extent to enable a diagnosis to be made, are frequently present at the sixth month, or even earlier. My experience is that the actual signs present differ somewhat in different cases, those which may be observed are the following, and it is upon the presence of two or three of these that the diagnosis is made.

"1. **Protrusion of Tongue.** Sometimes present at birth and usually present before the sixth month.

"2. **Skin.** Often yellowish in color, loose and wrinkled (especially forehead). There is often some puffiness of the features with thickening of the eyelids, nostrils and lips, also of hands, feet, back of neck, due to myxoedematous swelling.

"3. **Abdominal Swelling.** With umbilical hernia very common.

"4. **General Mental Apathy and Slowness of Movement.** This is very important and frequent early sign which an experienced physician, familiar with normal children usually notices at once, but which may not attract the attention of the laity. As Dr. John Thomson says, 'the baby seldom, if ever laughs or even smiles normally, and he rarely cries right out in a hearty infantile way. In the worst cases he may be so lethargic as

to refuse to suck and have to be fed with a spoon.'

"5. **Scantiness of Hair and Eyebrows.** Dr. Hutchison draws attention to this, and whilst not invariably present it is certainly frequently so.

"6. Dr. Thomson draws attention to the frequent presence of a peculiar **Snorting and Snoring Breathing** and peculiar dry, leathery cry which he regards as very characteristic and which is due to submucous infiltration.

"7. **Subnormal Temperature** habitually present."

Dr. Tredgold further states: "The majority of cretins that are brought to me are rather older, somewhere about twelve months or so, and they usually come then because of decided mental dullness, absence of speech, etc. I have therefore thought it wise to ascertain the opinion of two experienced physicians in Children's diseases. Dr. John Thomson of Edinboro, and Dr. Robert Hutchison of London, and the signs which I have quoted above represent our combined experiences. I may say that both these doctors are quite certain, with me, that cretinism may be diagnosed quite early if the observer will look out for the above signs. Dr. Thomson says they may be noticed during the early weeks and months of life. Dr. Hutchison says, 'I have not the least doubt that an experienced observer can diagnose cretinism as early as three months, indeed I have known it correctly spotted much earlier.'"

In conclusion the writer wishes to point out that these developed cretins are **feeble minded** and are potentially cases of **insanity**; and every potential cretin diagnosed early, treated vigorously and cured becomes an asset instead of a liability to the family, county or state.

## MAGNESIUM SULPHATE POISONING IN CHILDREN \*

Wm. W. Anderson, M. D., Atlanta, Ga.

The toxic action of magnesium salts, if absorbed into the circulation, is well known. This fact is utilized by zoologists for fixa-

\* From the Scottish Rites Hospital for crippled children, Atlanta. Read before the Fulton County Medical Society, Atlanta, August 4, 1921.



tion of animal organisms in natural free positions, since lower animals are narcotized and paralyzed by the salts of magnesium without any primary stimulation.<sup>1</sup> If absorbed into the circulation, magnesium salts are very poisonous, even a few decigrams administered intravenously to large animals being sufficient to paralyze the respiratory center. Following subcutaneous injections, the toxic action develops more gradually, the respiratory paralysis being succeeded by a complete narcosis of the central nervous system after an injection of 0.8-0.9 gm.  $MgCl_2$  per kilogram of body weight. As the salts are excreted, this deep narcosis slowly disappears. Intravenous injections of calcium salts overcome this narcosis almost instantly.<sup>2</sup>

Meltzer<sup>3</sup> reasoned that the phenomena of life result from the interaction of excitation and inhibition. There are four principal inorganic constituents of the body,—sodium, potassium, calcium and magnesium. Of these the three first have been known to possess a stimulatory effect on muscle and nerve. It remained, therefore, for magnesium to exert an antagonistic, or inhibitory effect. On putting this theory to test, the application of magnesium sulphate to nerve trunks was found to block conductivity and to abolish excitability. Intracerebral injection of magnesium sulphate was next found to induce a state of general inhibition; subcutaneously, it produced a deep narcosis and complete muscular relaxation; intravenously, the same effect, also arresting intestinal peristalsis. Both the subcutaneous and intravenous injections produced complete muscular relaxation in tetanus, lasting often as long as 24 hours. The depressing effect, however, was too great and no reduction in the mortality of this disease was accomplished, the high temperature continuing and the patients dying from exhaustion. That death from intraspinal injections of magnesium sulphate is due to paralysis of respirations alone, the heart apparently being not affected, seems conclusively shown by his experiment with monkeys. In one animal he injected what would have been a lethal dose. In 25 minutes respirations had ceased.

The heart, which had nearly stopped from asphyxia, regained its force and rhythm after tracheotomy and artificial respirations, which was continued for seven hours. At the end of this time there was no effort on the part of the animal to resume its own respirations, so artificial respiration was continued for another seven hours, the heart during this time acting perfectly. At the end of 14 hours spontaneous respiration was resumed, and the animal recovered completely and was apparently in good condition.

Clinically, Boos<sup>4</sup> in 1911 reported 10 cases of poisoning from magnesium sulphate. A paralysis of the bowels was caused in 2 cases, so marked that laparotomy was performed. A marked diminution of urine was noted, amounting in some of his cases to almost an anuria. In only 1 of the 10 cases was there active purging. This patient had taken salts in several pints of beer. Convulsions and motor paralysis were observed in 2 cases. Striking depression of respiration occurred in 6 cases. Of these 10 cases, 6 resulted in death. Legrand Kerr<sup>5</sup> calls attention to the fact that magnesium sulphate given by mouth as a laxative is often followed by considerable depression, particularly if it fails to cause the bowels to move. In nearly every case it was followed by more or less depression, when given to a number of children as a laxative. Fraser<sup>6</sup> reported a case of poisoning in a boy  $3\frac{1}{2}$  years old who took a heaping teaspoonful of epsom salts thinking it to be sugar. A few minutes later he was found with pain in the stomach, nausea, retching, thirst and vomiting. When seen 25 hours later he was critically ill, lying on his back, with face pinched, eyes sunken, and skin pale. The mind was clear. There were intermittent colicky attacks. Temperature 100.5; pulse 160 per minute, and small; tongue dry, thirst intense, and the bowels had not moved. Half an ounce of urine had been passed in 24 hours. The abdomen was distended and rigid, and the skin markedly hyperesthetic. The catheter withdrew half an ounce of dark, muddy, very acid urine, containing no albumin. The symptoms getting worse and suggesting an acute peritonitis, laparotomy was performed. About 2



pints of blood stained serum subsequently found sterile, were withdrawn. No cause for obstruction was found. Subcutaneous injections of saline and calomel by mouth were given, after which the bowels moved, and the patient slowly passed from his moribund condition.

#### Report of 2 Cases:

Otella and Ozella L., twins, eleven years old, residing in the mountains of north Georgia, were admitted to the Scottish Rites Hospital for Crippled Children in April, 1920, for observation. They were accompanied by an aged grandfather, who can give only meager details as to their family histories and past histories.

**Complaint:** "Trouble in walking."

**Family History:** Mother died of measles and pneumonia when children were 9 years of age. Father died 4 years ago of ulcer of the stomach. Family history otherwise negative. No similar disease in family of either side.

**Past History:** Both children were well until 5 years of age, when they had measles and pneumonia. They have had difficulty in walking since that time. At first they were awkward in their locomotion, but could walk one-half a mile to school. 2½ years ago they were operated upon for "weak backs" after which Ozella could walk straight. Then they began to fall down while walking, and this weakness has progressed until now they waddle about on the tips of their toes with knees and hips flexed. During this time the children occasionally complained of pain in their ankles and there has been some edema of their ankles. They have the same deformities with the same posture and modes of locomotion.

**Physical Examination:** Poorly nourished, mentally alert, lying in bed with legs and arms flexed, which cannot be fully extended. Temperature, pulse, respirations normal.

**Head:** Both children's tonsils are large and cryptic, and there are several carious teeth. Pupils equal, regular, react to light and accommodation. Otherwise negative.

**Skin:** Negative.

**Glands:** No general glandular enlargement.

**Chest:** Heart and lungs negative.

**Abdomen:** No enlargement of liver and spleen. Negative.

**Genitals:** No vaginal discharge. Negative.

**Neuro-muscular:** All cranial nerves seem normal. No findings pointing to involvement of cerebrum or cerebellum. The arms are held at an angle of about 150 degrees at the elbow, due to apparent contractures of biceps muscles. Triceps apparently much weaker than biceps and show marked atrophy. Hand grips are very weak. No marked atrophy of intrinsic muscles of hands. Extensor muscles of hands and fingers evidently weaker than flexors. The knees are held in flexed position of about 90 degrees due to contractures of ham string muscles. Quadriceps extensor muscles are much weaker than flexor groups. Marked atrophy of calf muscles with contractures of posterior groups of muscles.

**Gait:** Both children can waddle around with knees and legs flexed, walking on their toes and swinging their bodies from side to side, resembling a duck.

**Sensation:** No disturbance of heat and cold sensations, light touch (camel's hair brush), sharp, dull (pin point).

**Reflexes:** Abdominal and epigastric present and equal. Unable to obtain biceps, triceps and periosteal radial. Knee jerks are present, although very weak. Tendo-Achilles active and equal on the 2 sides. Babinski, Gordon, Oppenheim absent right and left side.

**Electrical Reactions:** Not tested.

**Blood Wassermann:** Negative in both patients.

**Urine:** Ozella: Single specimen at time of admission: amber, slightly cloudy, specific gravity 1017. Albumin and sugar negative. Indican present. Microscopic: An occasional pus cell in centrifuges specimen, no casts, no RBC, otherwise negative.

**Otella:** Single specimen on admission: amber, clear, acid to litmus, specific gravity 1017, albumin, sugar, indican negative. Microscopic: many epithelia cells and a few pus cells in centrifuged specimen, no casts.

**Cerebro-spinal fluid:** Not studied.

**Stools:** Ozella: Ova of *uncinaria americana* present.

Otella: Ova of *tenia nana* present.

**Clinical Impression:**

1. Both children have a progressive muscular myopathy, possibly a progressive muscular dystrophy. Orthopedic operation not advisable.
2. Dental caries.
3. Enlarged and cryptic tonsils.
4. Intestinal ova, *uncinaria americana* in Ozella's case and *tenia nana* in Otella's case.

**Treatment for Intestinal Infection:** On April 8, 1920, both children were given 2 ounces of saturated solution of magnesium sulphate. Following this initial dose each child had some 4-5 large, loose, watery stools. Breakfast was omitted the following morning and at 6, 8, and 10 a. m. Otella was given 8 grains of oleoresin of male fern. At the same hours Ozella was given 8 grains of thymol. At 12 Noon both were given 1½ ounces of saturated solution of magnesium sulphate. Following this second dose of magnesium sulphate there was no purging.

**Poisoning from Magnesium Sulphate:** Ten hours following the second dose of magnesium sulphate both children were in a profound state of collapse. They complained of intense abdominal pain, of being hot, were nauseated and vomited coffee ground vomitus almost continuously, so that no food or liquid could be retained by mouth for some 40-48 hours. They would sink into a comatose stage with eyes rolled up under half closed lids, scarcely perceptibly breathing, slowly and deeply. At all times, however, they could be aroused, could tell how they felt, and their mentalities were clear throughout. On examination their extremities were icy cold, their pulses could not be palpated at the wrists for some 20 hours and their heart sounds were very weak and rapid. There was no jaundice, no spasms or convulsions. The abdomens showed slight general rigidity, not localized. There was marked suppression of urine and feces for about 20 hours, after which both urine and feces were passed in bed, so that a careful examination was not made. High colon irrigations of normal salt solution and procto-

clysis of 5% glucose were begun, after which the bowels eventually moved, the vomiting ceased, and the children could retain a little strong hot coffee at first after about 48 hours. The pulses became palpable at the wrists, respirations began to approach normal and the stuporous condition slowly passed away, so that within 4-5 days the children were in the same condition as on admission and could retain the usual hospital diet.

Sajous<sup>7</sup> states that in occasional instances conclusive phenomena are seen, and that death from magnesium sulphate poisoning, which will inevitably develop where there is sufficient absorption of the drug into the system, is due to respiratory failure. Boos<sup>8</sup> is of the opinion that poisoning may develop by the accumulative action of small doses given repeatedly in concentrated solution. He feels<sup>9</sup> that to obtain efficient catharsis without danger of intoxication, the salt is best given in solution not exceeding 6% strength, since above this concentration more or less magnesium sulphate is absorbed and lost to catharsis, while its presence in the circulation is a menace to the patient's life.

Of those dying from magnesium sulphate poisoning, the most typical findings at autopsy are patches of reddening on the gastro-intestinal mucous membranes.

**Conclusions:**

1. Magnesium sulphate taken by mouth may be absorbed into the circulation and cause serious, perhaps fatal poisoning, particularly under the following conditions:
  - a. In concentrated doses;
  - b. In overdoses;
  - c. In frequent small, concentrated doses, when an accumulative action may occur;
  - d. In debilitated conditions,—perhaps as in the two above cases cited;
  - e. When not followed by active purging;
2. The cardinal signs and symptoms are usually:
  - a. Marked depression; mentality clear; signs of respiratory failure, with slowing and weakening of the heart action; motor weakness of the limbs; more rarely convulsions;
  - b. Abdominal pain, nausea, vomiting, rigidity of the abdominal muscles; sup-



pression of urine with high specific gravity; anuria; usually the bowels have not moved.

3. Treatment consists in:

- a. Elimination by the gastro-intestinal tract,—irrigations, catharsis, etc.;
- b. Saline infusions,—subcutaneous, intravenous, rectal;
- c. Dilute solution of calcium salts hypodermically;
- d. Stimulation,—ammonia, ether, atropin, digitalis, etc.;
- e. External heat.

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436 Peachtree Street.

## REPORT OF A CASE OF CHORIO-EPITHELIOMA.\*

Dan Collier Elkin, M. D.

Chorio-epithelioma has the ability of autonomous growth common to neoplasms, whether benign or malignant. In some cases the growth is the orderly progression of a normal process and is not malignant. This process concerns the development of the placental chorionic villi, and their invasion by a physiologic growth of the uterine wall to help form the placenta and nourish the ovum.

A cross section of a normal chorionic villus shows a core, composed of mesenchymal tis-

sue in which blood vessels (the umbilical artery and vein) are imbedded. Surrounding this is a layer of clearly defined cells with weakly staining nuclei, the layer of Langhans, and immediately outside this layer, but distinctly separated from it, is the syncytial layer, so called because it is a continuous mass of protoplasm containing numerous small nuclei. Both layers are entirely derived from the epithelium of the chorion, and are therefore ectodermal and fetal in origin. This arrangement of cells is adapted to their peculiar function, for it is by their proliferation that the villi invade the decidua serotina and so effect an intimate relationship with the maternal blood spaces. This growth and effort to nourish the ovum leads to an erosion of the blood spaces in which knots of syncytial and Langhans cells can often be demonstrated and to the deportation of villi by the blood stream to the lungs and other organs. Such a growth at once suggests high malignant potentialities.

The local overgrowth of such elements, their erosion of blood vessels, and their transportation to distant organs (metastasis) is exactly what happens in chorio-epithelioma, only in this pathological condition there is an exaggerated activity and perverted growth which must be regarded as malignant.

There seems to be, in the development of the normal placenta, some retarding force which causes a cessation of activity on the part of the invading villi, whereas in the case of chorio-epithelioma there is some stimulus to growth beyond the limitations of normal development. The large number of spontaneous cures of rapidly growing neoplasms of this variety, even after metastasis to the lungs and other organs, is evidence of this retarding influence.

It is the opinion of most pathologists that it is impossible, except in rare cases, to predict the clinical course from the microscopic picture, and cases are reported of clinically benign or clinically malignant growths which demonstrate that either of these types may at times fall into any histologic class.

Marchand divided chorio-epithelioma into two classes, (1) typical, and (2) atypical. In the first class he placed the clinically malig-

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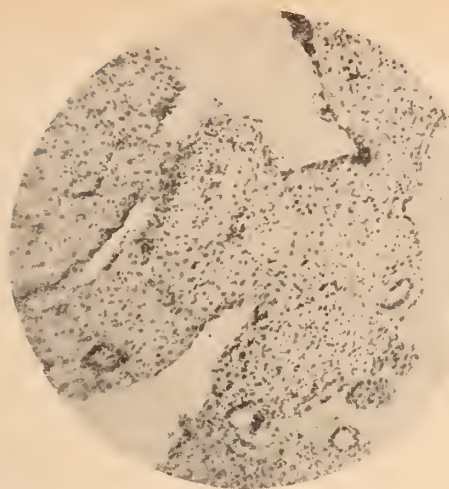


FIGURE 1. Photomicrograph: Uterine curettings showing the branching edematous chorionic villi with cellular fibrous tissue cores containing congested vessels. A benign growth.

nant form, which is composed of syncytial masses, together with groups of Langhans cells invading the uterine musculature.

The second group is the non-malignant class, characterized by an invasion of the uterus by syncytial masses, and with an absence of Langhans cells.

Ewing has further classified these tumors as follows:

(1) Chorio-adenoma destruens. Destructive placental mole. This type is composed essentially of hypertrophied villi, syncytial and Langhans cells. "When actively growing Langhans cells are present, the case can safely be said to be malignant." "When the cores of villi are present, the case can be said to be relatively benign." In short then, this type is an orderly overgrowth of villi, with core, syncytium and Langhans cells, relatively benign, and with little tendency to metastasize.

(2) Chorio-carcinoma. This is the type of tumor classed as "typical" by Marchand. Here there is an absence of stroma of the villi, "the epithelial growth is anaplastic and disorderly," and the orderly growth observed in chorio-adenoma destruens is lost. The tumor is small, and the uterus only slightly enlarged, the growth travelling by invasion of the uterine sinuses. There is a tendency to widespread metastasis, and the tumor is distinctly malignant.

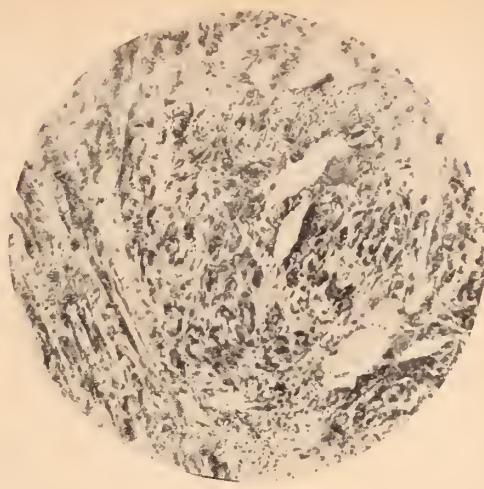


FIGURE II. Photomicrograph: Section of Uterine wall showing masses of syncytium accompanied by Langhans cells invading the uterine musculature. A malignant growth.

(3) Syncytioma and syncytial endometritis. This class belongs to the "atypical" group of Marchand, the whole process being limited to a syncytial invasion of the uterine wall, with absence of Langhans cells.

#### CASE REPORT.

Mrs. F. E. Surgical No. 11383. Admitted Oct. 28, 1919. Russian Jewess, aged 51, complaining of excessive uterine flow, presumably due to incomplete abortion.

**Family History**—Unimportant.

**Past History**—Always in good health until her present illness.

**Marital**—Married 28 years; seven children living and well. Her last pregnancy resulted in a miscarriage nine years previous to admission.

**Menstrual History**—Onset at 18. Periods irregular until marriage at 22. Flows 3 days, moderate, regular every 30 days. Menopause supposedly established two years previous to admission though every three or four months she would stain slightly for two days.

**Present Illness**—Ten weeks before admission she had a profuse flow following a bath, at which time she passed clots. Three weeks later she had a similar flow. Her family physician was called, a diagnosis of incomplete abortion made and curettage performed. Since then she noticed slight staining at four or five day intervals. She has never experien-

ced any pain associated with the hemorrhage, nor any symptoms suggestive of pregnancy.

**Physical Examination**—The general examination showed her to be poorly nourished and developed, but was otherwise negative. Above the symphysis a mass (uterus) could be felt. Vaginal examination showed a marital outlet with moderate rectocele and cystocele, and a slight bloody flow. The cervix was large, soft and lacerated, and the os admitted the examining finger. Rising above this was a freely movable, somewhat enlarged, soft uterus.

A provisional diagnosis of incomplete abortion or possibly malignant disease of the fundus uteri was made.

**Curettage**—On October 30th, 1919, curettage was done (Dr. E. C. Cutler) under ether anaesthesia, and examination at this time confirmed the examination previously made. The depth of the uterus was four inches on the right side, and fully five inches in the region of the left cornu. In the latter location was felt an indefinite soft boggy mass, curettings from which yielded tissue composed of small cysts and decidua-like material. Frozen sections were at first reported as normal placental tissue, but in view of the gross appearance of the tissue repeated sections were cut, upon which a diagnosis of hydatid mole was made. The patient had lost considerable blood and since her pulse was 140 it was not considered advisable to subject her to further operative procedure at this time.

Paraffin sections of the curetted material showed long, branching, edematous chorionic villi, having abundant cellular fibrous tissue cores containing large congested vessels. In places the continuity of the endothelial walls of these vessels seemed lost, and the blood, which was in part hyalinized, was seen in the tissue spaces. Surrounding the connective tissue core were masses of deeply staining eosinophilic protoplasm containing closely packed nuclei (syncytium). There were no Langhans cells, while many of the villi had only a thin layer of syncytial cells. In some places, large masses of syncytial cells surrounded the core, or were rarely found without fibrous cores. The whole gave a typical picture of hydatidiform mole.

The patient made a satisfactory recovery, and after three days the bleeding ceased. In view of her age and the possibilities of perforation from hydatid mole or the development of chorio-epithelioma, operation was decided upon and supravaginal hysterectomy done Nov. 7, 1919 by Dr. Cutler. The left side of the fundus uteri presented a bulging discolored area, soft to palpation. The adnexa and parametrial tissue appeared normal. She made a good postoperative recovery, and she was discharged on the 12th day.

Gross pathologic examination of the uterus and adnexa showed normal ovaries and tubes. The uterus was 7 cm. long and 6 cm. wide. In the fundus on the left side was an elevated, firm, irregular area 2 cm. in diameter, covered with pale, translucent mucosa. Extending from this into the left cornu was a patch of necrotic tissue surrounding the above area, having a crescentic shape, with dimensions of 3 cm. by 1.5 cm. An incision across the left cornu showed the wall infiltrated with yellowish translucent tissue. Deep in the wall of the uterus was a spherical cavity 1.5 cm. in diameter, filled with blood clot and lined with soft translucent yellowish tissue. This cavity extended within 3 m. m. of the peritoneal surface, and since the thickness of the wall at an adjacent point was 2 cm., it is obvious that the wall has been deeply infiltrated by the process. At other points on the periphery of the surface areas, the wall was invaded to a depth of .5 to 1 cm.

Microscopic section of the entire uterine wall, including the hemorrhagic cavity showed marked edema, and the cavity itself to be filled with blood and leucocytes, and lined with large decidua cells. In some places there are masses of syncytium accompanied by masses of Langhans cells, the latter less deeply stained and the whole giving a picture of chorio-epithelioma.

The patient returned to the hospital for examination one year after discharge, and no evidence of local malignancy or metastasis could be discovered.

This case presents a gynecological problem, which, though rare, is apt to arise at any time. The fact that a benign mole was



diagnosed from the curettings, raises the long discussed problem of the proper treatment in such cases. Studies after hysterectomy showed definite malignant growth in the uterus, yet previous microscopic sections of the curettings showed no malignancy, nor even any marked cellular proliferation. Many cases with these latter findings are permanently cured by simple curettage, but occasionally, as in this case, a chorio-epithelioma is present or later develops. In no other condition is greater caution required in making a prognosis or in deciding upon the type of operation. Histological studies of curettings can only give a definite prognosis in typical cases, for the difficulties are equally great for pathologist and clinician.

### FURTHER REPORTS ON SACRAL ANAESTHESIA\*

Homer L. Barker, M. D., Carrollton, Ga.

As early as 1901 and 1903 Cathlin proposed the use of normal saline injections into the sacral canal for the purpose of allaying certain nervous manifestations connected with the urinary tract. Encouraged by some success the same author later tried to induce anaesthesia by injection in a similar manner, but at this time failed.

In 1910 material success was reported in regard to this form of anaesthesia, and Laewen described his method and the anaesthetic effect obtained by using a one to two per cent solution of novocaine in normal saline solution. He also mentioned that the effect was somewhat variable, but claimed good results in many instances. In reviewing the subject of nerve blocking for local anaesthesia Laewen mentioned the sacral method and reported having used it with good results. This was our first introduction to this method.

Analgesia had been noted in the gluteal region, rectum, anus, skin of the scrotum and penis and the upper and inner parts of the thigh, and in women the vulva and vagina. Lewis and Bartells have used sacral anaesthesia and have reported a series of cases with good results in most all of them. Their

work consisted of prostatectomies, cystoscopies, two cystotomies, one external perineal urethrotomy and one rectal carcinoma.

Hertzler, Lynch, Pickens and Thompson have reported series of cases where sacral anaesthesia was used, all giving favorable reports. Up to date, however, most of the work done under this method has been on the rectum and cystoscopies and urethrotomies.

Early in 1919 Doctor John M. O'Conner, of New York City, and myself had a series of ten cases, and since that time I have had thirty-three additional ones. The cases are grouped as follows:

Hemorrhoids .....	11
Dilatation and curettage.....	8
Cystoscopies .....	4
Circumcisions .....	3
External urethrotomies.....	3
Repair of cervix and perineum..	3
Ischio-rectal abscess.....	2
Prostatectomies .....	2
Varicocele .....	2
Draining posterior culdesac.....	1
Cauterization, cervical carcinoma	1

In all cases we had some results, and, in nearly all, perfect analgesia of the parts supplied by the sacral nerves later described. The solution used is a one per cent novocaine in normal saline solution, one per cent potassium sulphate or distilled water. In any case a few drops of Adrenalin solution is added. Of this solution thirty c. c. is used in the following manner:

Place the patient in a comfortable position, face downward. Thoroughly cleanse the surface over the sacrum and coccyx and paint with iodine. Then anaesthetize the skin with the novocaine solution. After a few minutes a nineteen or twenty gauge needle, two to two and a half inches long, is introduced at the sacro-coccygeal articulation, directed forward and upward at an angle of sixty-five to seventy degrees, varying of course with some individuals. When the needle enters the canal there is little or no resistance in passing it upward. If no blood or fluid passes out through the needle, which does not occur in normal individuals, connect the syringe containing the solution and

\* Read before the Medical Association of Georgia, Rome, Ga., May 4-6, 1921.



inject slowly. There is very little and sometimes no resistance met on injecting this solution until the canal is filled. The capacity of the canal varies with different individuals, and it is sometimes very difficult (failures have been reported) to enter the canal, due to abnormalities. Usually thirty c. c. is sufficient to fill the canal and give the desired effect.

In one of our cases the canal was filled with approximately eight c. c., but by slow-injection we did inject fifteen c. c. which gave perfect analgesia for hemorrhoidectomy. In two other cases we found an abnormally large canal; one requiring a total of sixty c. c. before the characteristic resistance was felt. Leave the patient in this position from twenty to thirty minutes, when you will get analgesia sufficient to proceed. Of the cases reported there have been no ill effects noted. It is safe and practical, and can be used in the office and home with very satisfactory results in most all perineal operations.

This method of analgesia is extra dural, and affects the anterior division of the fifth lumbar, a branch of the fourth, and the anterior division of the first, second and third sacral nerves and a part of the fourth. It seems that the particular branches affected are the pudendal or internal pudic, which is formed by the second, third and fourth sacral nerves, and gives off the inferior hemorrhoidal, perineal and dorsal of the penis. The inferior hemorrhoidal supplies the sphincter and the integument around the anus where it communicates with the posterior femoral cutaneous and posterior scrotal. The perineal gives off the posterior scrotal to the skin of the scrotum and the muscle transverse perinei, bulbo cavernosum, constrictor urethra and corpus cavernosum urethra, and ends in the mucous membrane of the urethra. The dorsal of the penis supplies the corpus cavernosum, then runs along the dorsal of the penis and ends in the glans. The visceral branches come from the third, fourth and sometimes the second sacral, and go to the bladder and rectum, and in the female, to the vagina also.

This method of anaesthesia, with local anaesthesia of the skin and muscles, will, in most cases, be quite sufficient for a suprapu-

bic prostatectomy, as well as for perineal prostatectomy. Occasionally a small amount of ether is required, and some have reported no results from this method; but I have not seen one that did not get at least a partial analgesia. I believe the failures reported have been due to failure to get the solution into the canal properly.

I believe this method will also prove helpful in obstetrics, especially, if given early enough in the second stage of labor. Certainly with old primipara and in the primary repair of lacerated cervixes and perineums it will be of value. Possibly if the solution was carried higher up the canal and the head and shoulder lowered, so as to aid by gravity, we might be able to do a herniotomy, as it is possible that the fluid in this way might reach the Lumbar plexus. The ordinary method of administration, as stated above, has no effect on the nerves supplying the field of operation for hernia or varicocele through Bevan's incision.

Personally, I believe if this anaesthesia, were used in all prostatectomies, even with general anaesthesia, that our mortality rate would be lowered; for it materially lessens the shock that so often follows the enucleation of the gland. We have noted in a few cases where we used the two methods in conjunction, that, during the enucleation, the circulation was not affected and there was no post-operative shock. In all our cases we found that it required less morphia after operation by this method than by general anaesthesia.

### LOCAL TONSILLECTOMY; A DIFFERENT TECHNIQUE\*

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In the past so many articles have been written on the subject of diseased faucial tonsils and their surgical treatment that one approaches this subject with a certain amount of trepidation. However, as long as

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there are any tonsils left (and it seems certain that the supply is inexhaustible) and so long as they appear to be the cause of so much distress to the human organism, just so long will this operation remain in vogue.

The selection of cases for local tonsillectomy is most important. Those who have suffered numerous attacks of peritonsillar abscess are not suitable on account of the fibrous tissue formed; also those having hypersensitive reflexes which make impossible any manipulation of the throat. There is a certain class of people who have a nervous dread of local operations, and their wishes for a general anesthetic should be complied with, otherwise such a patient's morale might break down while on the operating table, thereby creating a most distressing scene.

In this operation the writer thinks that the following considerations should be noted: first, that the tonsils be completely removed without any damage to the surrounding structures, and second, that the operation be done as painlessly and quickly as possible.

**Preparation of Patient.** Previous to removal of the tonsils, either under local or general anesthesia, we always take the coagulation time of the blood, and should this be prolonged, we give coagulin ciba, 1-5 c. c. daily until this condition is relieved. This procedure takes a certain amount of time, and may not seem justifiable in the average case, however, if it is carried out as a matter of routine, the operator will not be confronted with embarrassing hemorrhages which are frequently difficult to control, and the patient will be relieved of the dire results which necessarily accompany such hemorrhages.

It is our custom, the night before operation, to have the patient take a cathartic of his choice, allowing nothing for breakfast but a cup of coffee or some light liquid, the operation being done preferably during the early morning. Thirty minutes previous to operation, the patient is given 1-6 gr. of morphine and atropine sulphate 1-150 gr. in a 25 % solution of magnesium sulphate. Gwathmey of the Presbyterian Hospital of New York has admirably shown by a great deal of experimental work that the action of

morphine is greatly increased and its toxic effect lessened by being given in the magnesium sulphate solution.

**Technique.** The solution used for injection consists of one half ounce novocain 1% and adrenalin chloride (1-1000) drops 5. This amount should be sufficient for both tonsils.

Nerve blocking for work under local anesthesia is now a recognized surgical procedure. "The posterior and external palatine nerves, which supply sensation to the anterior surface of the tonsil, can be easily blocked at their emergence, immediately behind the posterior palatine foramen; this point is just internal to the third molar tooth. The position of the glossopharyngeal nerve, which also sends branches to the tonsil, has not been so clearly described in most textbooks. Anatomical studies and clinical experiments show that blocking of this nerve can be attained by infiltration of the loose connective tissue surrounding it and that the injection may best be made external to the anterior pillar of the fauces, at the junction of the upper and middle thirds of the tonsil."

The injection of the tonsils is best made with the patient in upright position, as any excess of novocain solution which might tend to collect on account of the cryptic condition of the tonsil, may be easily spit out and will not tend to run down the patient's throat, as would be the case were he in prone position. However, for the operation itself we have found that the patient gets along much better lying down. Here he is not afforded the opportunity of pulling backward and forward and to the sides with such freedom as when sitting up. After waiting about five minutes, the tonsil first injected is removed and then the other. This we think allows sufficient time for anesthesia to take place.

The instrument used in this operation is a Demorest modification of the old Sluder. This instrument should be grasped in the right hand for the right tonsil, and in the left hand for the left tonsil, if the surgeon is ambidextrous, in which case he can perform the operation much more easily and



quickly. The tongue should now be depressed with the instrument of his choice. The blade should be directed toward the tonsil which is to be removed, while the handle is on the opposite side of the mouth. Expose the lower margin of the tonsil and pass the tip of the Sluder between the posterior pillar and the tonsil. The instrument is now directed upward and outward. The tonsil will now be seen to enter the fenestrum, and pressure should be exerted on the anterior pillar by the thumb of the free hand, until the entire tonsil is felt to slip as it were into the fenestrum of the instrument. (Thus it will be seen that a double pressure is brought to bear on the tonsil: from behind by an upward and outward movement of the instrument and also by direct pressure of the thumb on the anterior faucial fold.) With thumb in the above position, the operator now pushes down on the Sluder blade as far as possible, and then by a rotary turn of the lock on the handle of the instrument, the tonsil is fixed. This blade crushes the blood vessel, thereby acting as a hemostatic, as it is allowed to remain in position for about five minutes. The handle of the Sluder is now brought slightly upward and toward the median line, and the forefinger of the free hand separates the capsule of the tonsil from its muscular attachment.

We have been impressed by the fact that not infrequently there is little or no soreness following this technique, especially in younger individuals, the reason for this being that the operation is done without the slightest injury to the muscular tissues. The only tissue incised was the mucous membrane of the two pillars at their junction with the tonsil, while the tonsil capsule was separated from the muscular tissue without trauma. The fact that not a shred of muscular tissue had been removed has proven of great importance in operating among singers or those dependent on their voices for a livelihood.

After the removal of tonsils the bleeding should be carefully checked, and under no circumstances should a patient be allowed to leave the operating table until his throat is absolutely dry.

**Postoperative.** The patient is given a gargle of Peroxide Hydrogen (50%), with instructions to use this every three hours. If previous to the taking of any nourishment the patient gargles with half a glass of warm water to which have been added two aspirin tablets, the pain will be greatly lessened. If the throat is lightly touched up with a solution of silver nitrate (20 grs. to oz.) every other day, it will be found that healing will be greatly facilitated.

There are, of course, certain limitations to the removal of tonsils under local anesthesia. Case after case could, however, be mentioned in which success has been achieved, and these results have made the work so satisfactory that the regret of an occasional failure is lessened.

#### SIGNIFICANCE OF EMACIATION IN PHYSICAL DIAGNOSIS.\*

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It is not the purpose of this paper to present anything new to this body, nor is originality in its full contents claimed; because we have used every reference obtainable to throw light on the subject; either to prove or disprove any theory involved in this discussion. We think the subject of emaciation is one of vast importance from a diagnostic standpoint; and it is a condition probably too much overlooked in our routine work. It is therefore our purpose to call attention to some interesting phases of the subject which are often regarded as casual while they are really salient in the diagnosis and prognosis of many clinical diseases, especially those of a chronic nature.

Emaciation might be properly defined as a loss in bulk of every tissue in the body except nervous tissue. We too often pass the condition up as a mere loss of fat; but we must get the picture of actual decrease of bulk in all tissues and as a result of this partial or complete loss of function of the tissues in order to really comprehend emaciation as we need it clinically and therapeutically.

As each tissue becomes involved in the

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wasting, special complications arise due to the emaciation itself, whatever the original pathology may have been; and in clinical practice it may assume the character of concomitant disease with important indications of its own for treatment, this being illustrated in such complications as bed sores, and myocardial-asthenia.

We perhaps too often pass up inspection and rush on to the supposedly better and more thorough methods of diagnosis. A careful inspection of our patients from the time they enter the office until we have gained all information possible it is ever in place in the diagnostician's routine. While we meet, greet, and elicit the history of our patient many things may be observed, which if they do not conclude our diagnosis will certainly point out the right road to a final conclusion and encourage us to travel it and confirm or disaffirm our first impressions. Possibly the presence of emaciation is best revealed by the appearance of the hands. Unless we are well acquainted with the patient the face may not reveal the presence of emaciation, because many people have apparently emaciated facies which are really natural for them and are in those cases compatible with perfect health. But on noticing the backs of the hands we find deep furrows between the metacarpal bones instead of the rounded oval contour which is indictative of fully developed and properly nourished interossei muscles. On having the patient extend the hand only the condyles touch and the emaciated hand resembles the claws of a bird when the concavity of the palmar surface is observed.

Many times we may find evidences of emaciation before other characteristic signs and symptoms of the underlying condition develop. So its etiology in any given case should be carefully worked out as we know an early diagnosis is more essential in the chronic insidious diseases than in most of the acute "Captains of Death." Then any evidence of emaciation revealed by the hands should lead us to look carefully for the same condition in the vital organs, especially in the cardiac muscle which may even precede any marked

change in the lung substance in that dreaded disease Tuberculosis.

Bacterial infection and the toxic products elaborated in those infections are responsible, in our opinion, for at least eighty per cent of all the emaciations met with in clinical medicine. This Toxic Emanation has been proven by injecting into animals various bacteria even in attenuated cultures. If these injections are continued emaciation follows even though the animal has been rendered immune to the original infection. It seems then that the antitoxin generated in these experimental cases is powerless against the wasting itself.

In wasting fevers perhaps the most appreciable sign of this wasting is the early loss of the subcutaneous fat. This fat being essential to its proper nutrition and blood supply, the skin becomes lowered in vitality and is easily infected unless kept scrupulously clean. A little later another complication arises as the cushion of fat decreases and the bony prominences come to impinge more directly upon the skin. Many intractable ulcers are formed in this way and in themselves endanger the life of the patient. In acute fevers emaciation should be ever kept in mind and its consequent complications guarded against. Even in such acute conditions as diphtheria we may not have any obvious signs of emaciation of any tissue and yet the patient die from myocardial dilatation, which in my opinion is not an actual loss of bulk in the cardiac muscle but is rather a functional emaciation of the individual cells composing that muscle, or rather an acute toxic condition which has a specific intoxicating effect on that particular tissue and immediately lowers its functioning power. I have never heard this condition termed functional emaciation but you will please pardon its use as I am unable to supply a better term. We hope that a better one may be suggested by the men who discuss this phase of the paper.

In our opinion the study of the organisms concerned in the etiology of disease is important but in clinical medicine nothing outweighs a knowledge of the by-products of

infection and the remote effects of such by-products, or toxins, on the human mechanism. Too often we think of the infection without looking forward to the pathology that will come with years as a result of the systemic toxemia.

As previously intimated many acute conditions run such a rapid and self limited course that we are not able to detect any actual emaciation. But such is not the case with chronic diseases and in these some differential points should be noted. Especially is this true in chronic bronchitis and tuberculosis. In tuberculosis the bones become thinned in a very peculiar way. The ribs instead of being broad as in bronchitis are thin and narrow and the intercostal spaces are sunken while in bronchitis the chest is full, rounded, and distended.

In chronic bronchitis the clavicles are raised while in phthisis the chest is retracted and the clavicles sunken. The neck therefore differs in every respect in the two conditions, being short and thick in bronchitis with the chin drawn back, while in phthisis it is long and slender with the chin protruding so far forward that a line dropped from the point of the chin would hang anterior to the umbilicus. In chronic bronchitis the accessory muscles are wide and hypertrophied, causing the super-clavicular fossa to be much deepened; in tuberculosis the muscles of the neck are flat and attenuated and the fossa shallow or it may be obliterated. In bronchitis the face is turgid, the ears thick, the eyelids swollen, and the conjunctiva suffused. In phthisis the ears are thin, anaemic and translucent, the cheeks are retracted with a characteristic drawn, anxious expression due to the descent of the clavicles and the consequent tension on the emaciated platysma myoides, and the eye balls look "glassy" because of the emaciation of the conjunctiva. These signs of emaciation sometimes precede any marked change in the lungs and should always be watched in clearing up and obscure diagnosis. Especially if the bones are emaciated without other signs latent tuberculosis should be suspected.

While infection with its toxemia causes

most cases of emaciation we must remember that malignancy, gastrointestinal disorders, Graves disease, and diabetes mellitus are common causes, and infection having been ruled out these conditions should be suspected and their presence either excluded or affirmed as the cause of emaciation.

There is another cause of emaciation in women which is worthy of mention and often gives us great concern. A very persistent and disabling anorexia often occurs in women who have suffered from pelvic cellulitis on account of the chronic irritation similar to the reflex effects of pregnancy on the stomach. These patients may take almost no food for months and are constantly nauseated and despondent. In these cases the ordinary bitter tonics and acids which are supposed to increase the appetite have no effect. This condition should be treated locally to remove the cause and the patient should stay in the open air, which will as a rule do more good than drugs.

The intestinal conditions that may cause emaciation are not so numerous but we should mention the differential points in chronic colitis and chronic enteritis; or the difference in the old terms diarrhoea and dysentery. In chronic diarrhoea the commonest time for evacuation of the bowel is the latter part of the night or early morning after the patient has been at rest for hours; in dysentery it is quite different. The pylorus in this condition seems to remain patulous and the taking of food stimulates peristalsis in the stomach; the food being immediately forced into the intestines and is soon passed in the dejecta, many times quite undigested. It is in these persistent cases of dysentery that we get so much emaciation. Especially is this true in babies who often pass their milk quite unchanged.

In conclusion we should not forget the emaciation that takes place in the cardiovascular system as a result of the common chronic diseases and their consequent toxemias. As previously stated infection in itself would not be so bad if the products of the infection that are liberated in the system were not present. I think this is especially



true in cardio-vascular conditions. A high percentage of our high blood pressures and arteriosclerosis are purely toxic in origin. This toxic effect is shown by the cases of marked albuminuria and high blood pressure in the latter months of gestation, and certain kidney conditions where we have a retention of urea without any mechanical cause for the high blood pressure and other symptoms that accompany it. In our opinion many of our cases of general anasarca and edema are toxic in origin and depend on faulty chemistry rather than on cardio-vascular mechanics as was once thought. It seems logical to conclude, as infection progresses and the blood becomes laden with toxins, that these toxins impair the functional power of the cells throughout the cardio-vascular system. Then we get what was previously termed functional emaciation. The cells being thus out of commission it is natural to expect actual emaciation as time goes on. When actual emaciation and atrophy has taken place then nature in her usual way sets about to replace and repair the destroyed tissue by supplanting it with fibrous tissue. Then it is that we begin to have mechanical cause for high blood pressure and general dropsy, while these may have preceded the fibrous tissue formation many months or even years. Our opinion is that in many of these cases the pathological chemistry is the cause of the general dropsy. Then in these cases we get first infection, toxemia, functional emaciation, actual emaciation and last atheroma and fibrosis. We all know that the treatment of general arteriosclerosis is in many cases not satisfactory; and such will continue to be the case so long as we neglect the etiology of this condition. General arteriosclerosis is but an end product of disease and the pathology antedating it should be corrected before it appears. In our opinion the future of the treatment of disease depends on advances to be made along the lines of physiological and pathological chemistry.

## THE COMBINED USE OF X-RAY AND RADIUM IN THE TREATMENT OF MALIGNANT DISEASE.\*

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A review of the general experience of workers in this field is necessary with reference to that aspect of the remedies on which an opinion is so often demanded.

The results obtained in the early days of trial of these agents led to an expectation of greater results as experience grew and methods of technic improved. These have been realized to a considerable extent, and there is reason to hope that, with accumulating experience and a more complete knowledge of the action of radiations upon cell processes, further improvements may be looked for.

The marked advance in the technic of x-ray therapy has placed it upon the same footing as radium in the treatment of malignant disease. In the opinion of many writers and workers, the x-ray has proved more useful than radium, as it is at present used. The factors which have led to this advance are:

1. The improvement in the x-ray tube, permitting control and the use of greater dosage with safety.
2. The use of more powerful apparatus and hence the production of more penetrating rays.
3. The use of thick filters.
4. The administration of powerful doses.

A further gain has been made by the use of both agents together or alternately, radium being used for more strictly local applications, and the x-ray for the treatment of the more distant parts, which may be already involved with the new growth, or may likely become invaded as a result of the extension of the disease by natural channels, as a result of the local stimulation if dosage is not correctly gauged.

The treatment of non-malignant neoplasms, such as fibromata, by x-rays has met with considerable success. The early investigators

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abroad have stimulated the students in this country, and results are being obtained in both simple and malignant neoplasms which are of striking significance in view of what can be done by the older and better recognized methods of treatment. In many instances of fibromyomata, marked improvement follows the initial series, and after four or five courses of treatment the patient is restored to health. Results obtained in these cases by radiation treatment compare very favorably with those obtained by operative measures, even when the cases best adapted to operative treatment are included in the analysis.

For malignant disease of the pelvic organs, if at all advanced, radiation therapy holds out as good a prospect as operative measures, especially when the latter are, as necessarily they must be, extremely radical, with a view to affecting a cure or even temporary amelioration. It must not be assumed that radiation treatment holds out a better prospect for a cure than operative measures. Recurrences can and do occur with about the same frequency as after operation, and the result, in both groups of cases, will be the same in the end. But when comparing results, consideration must be given to the conditions existing in the interval between the treatment and the recurrence. The treatment by radiation is painless, does not subject the patient to any marked degree of shock, and the immediate effect is apparent in an improvement of health, a diminution or cessation of discharge and a degree of local comfort.

It is not intended to convey the impression that the use of x-ray or radium should displace operation in all cases. Far from it. The ideal method is to employ radiations in all cases before, and again after, operation, prophylactic treatment being adopted wherever it is possible. Operations when performed, should be as radical as possible, care being taken to exclude advanced cases where the surgeon knows no good can accrue. In these cases the x-ray should be employed as a palliative measure.

All post-operative cancer, no matter where located, should receive prophylactic treatment immediately after operation, and this should be continued at intervals for at least a year. The results obtained are encouraging. A number of

cases have been under observation for several years without recurrence. Recurrences which do show up, often subside and disappear after prompt treatment. In many cases, death has occurred as the result of metastasis elsewhere than in the areas treated. The post-operative value of the ray is shown by a softening of the scars, a loss of tenderness in the wound, and the nearly absolute guarantee that no metastasis will show itself in the operative scar.

It is important that no cases, however advanced, from the therapist's point of view, be refused a trial of x-rays or radium. Some of the most unfavorable cases respond to treatment in a marked manner, while others which appear favorable do not. The large superficial, ulcerative carcinomata of the breast often respond beautifully to treatment, shrinking rapidly and granulating over with healthy skin, and in the interval the patient enjoys good health and a freedom from pain and toxemia, with a good chance of a permanent cure.

The reason why one case responds and another does not is one of the profound problems which the radio-therapist is striving to fathom. A solution of this problem will go far toward establishing radiation treatment on a sound, intelligent basis. In all probability, the explanation is biologic: a condition of cell, physical or otherwise, responds to a particular type of ray, producing far-reaching metabolic changes in cells and sera, which act on near and distant tissue proportionately. This biologic fact is one which in the absence of convincing experimental evidence, would best be disregarded for the present, as no attempted explanation of it can be more than speculative conjecture. Future attempts to clear up this point will no doubt be confined to physical experiment in the direction of producing effects on deep tissues, and of interpreting the biological results of experiments in immunity conferred on tissues through the use of irradiated tumors and sera, transplanted or injected.

The important point from the practical radio-therapeutic point of view, is to determine the depth at which a tissue can be influenced, and the dose it is possible to convey at a particular depth of tissue. When these points are ascer-

tained, it should be possible to produce changes in deep tissues.

The general results of many experiments made by different men, both in this country and abroad, confirm the following observations. Until quite recently it has been held that x-rays penetrated successfully to a depth of about 1 cm, and anything deeper would better be left alone. The use of radio-active bodies led to a belief that when employing the gamma ray a much greater depth could be reached and effects be produced that were unobtainable by the x-ray. Conclusions reached by increasing experience point in the opposite direction: by the use of hard tubes and longer exposures to the x-rays, effects of quite marked degree can be produced as deep as 10 cm (4 inches). The same results may be obtained from the use of radio-active bodies, if the quantities are large and the time of exposure is prolonged enormously, too long for safety, so far as the tissue in immediate contact with the source of irradiation is concerned.

The x-ray tube produces many thousand times more rays than any available quantity of radium, while it is possible to achieve a measure of safety by working at a greater distance from the skin or mucous surfaces, and at the same time to produce on the deeper tissues an effect beyond all comparison with that of the radio-active bodies, even when the gamma-ray of radium alone is used.

When experiments are made with known methods of measurement, such as the Kienboeck strip, placed in tissues or organs at a depth of several cm, and the surface of the body radiated with an x-ray tube, in ten minutes exposure 10 X have been recorded on the paper, while with a long radiation of 200 mg of mesothorium applied to the skin surface, no effect was recorded on the paper, while the skin surface shows marked reaction. These points have been experimentally proved by using an electroscope and the iontoquantimeter of Szillard, and have been confirmed on living tissues.

The penetrating power of the rays is only one factor. The quantity of the radiation administered is probably more important. In all cases of cancer which are likely to be benefited by x-rays, it is apparently more a question of the

quantity of the ray which can be administered, since with the apparatus now at our command, the quality of the ray may be kept at a fairly constant value.

It is now possible to state in a number of cases, according to the depth of tissue, what quantity of radiation may be required to produce a favorable result; thus with a growth at a depth of 2 cm, 300 to 500 X may be necessary to cause a retrograde change in the cancer cells. The maximum depth in any part of the body may be taken as 10 cm. or 4 inches; if a tumor exists in a deep part, it can be and is radiated from two or more aspects. In order to induce a therapeutic effect at say 10 cm, the intensity diminishing as the distance increases, the deeper part receives only a fraction of the amount that the skin surface receives. It is necessary therefore, to exercise great care in the administration of these large doses. Especially hard rays must be employed, with proper filtration to avoid doing harm to the skin. The production of a radio-dermatitis is at times necessary, but the risks are minimized in so far as possible, and are insignificant when compared with the dangers of the lesions from which the patient is suffering.

The points therefore to observe in the use of heavy doses of the penetrating rays are: employment of thick filters, proper skin distances, many portals of entry, and sufficiently long intervals between exposures.

In the majority of cases, the use of the x-ray alone or combined with radium, especially in the types that allow close approximation of the radium to the growth, is ideal. For instance, in rectal or uterine cancer, where the growth is near one of the natural openings, we have the local advantage that the radium gives us in the areas close to the growths, while the use of the hard x-ray through many different portals, permits us to give to the desired area, sufficiently large dosage to accomplish a result. Using a good quantity of radium and a penetrating x-ray, the resulting influence over the growth and glands must be enormously enhanced. The x-ray exposures may be carried on in the intervals between the radium exposures.

The proven histologic action of x-ray and



radium on the cells is as follows: an edema is produced in the endothelial lining of the blood vessels, which becomes pronounced to the extent of occluding the small arteries, thus shutting off the nutrition to the growth. When treatment is carried far enough, this edema results in an endarteritis obliterans in the small capillaries. The second action is on the cells of the growth, the ray producing a cloudiness of the nucleus and a disappearance of the entire cell, the debris then being carried away by the phagocytes. After these cells have been destroyed, they are replaced by connective tissue. Mitosis is arrested and prevented.

When treating deep seated growths, one must see that sufficient dosage is given to produce just as much change in the tissues as would be considered necessary if the growth were on the surface. Multiple areas are treated so that the growth receives heavy dosage, while each area of skin receives only one skin unit.

Many inoperable breast and uterine cancers become quiescent after thorough radiation treatment, but resection of the mass will reveal malignant cells sealed up in fibrous tissue. This raises the question as to whether all cases treated by ray should not later be operated, in order to remove any possible buried focus that might light up at a later date. Also there is considerably less danger of spreading the disease after thorough radiation has been performed, as the new fibrous tissue formed is much less likely to permit metastasis, and all lymph channels are sealed off. It is therefore indisputable that pre- and post-operative radiation in any form of cancer is correct.

The early recurrence of a neoplasm after radiation treatment does not necessarily prove that the treatment, taken as a whole, is of no value. It merely demonstrates the fact that we have not given a dose sufficient to check the particular malignant process in this case. It must also be borne in mind that there are growths that cannot be influenced by any radiations at present at our command. It would appear that these cases are quite as unresponsive to any other form of treatment. Complete radical excision of a comparatively early growth, with apparently no involvement of

glands, is followed by what seems a complete recovery. Later, but in these cases comparatively soon after operation, recurrences show themselves in the scar or neighboring lymphatic glands. No subsequent treatment appears to do any good. Radiation treatment in a case of this type would achieve no better result, however early and thorough the treatment might be.

It is the less virulent case which is more amenable to both methods of treatment. The choice of treatment in these cases raises a wide and difficult question: Which will give the better result? In the present state of our knowledge of therapeutic radiation in its great uncertainty of action upon particular types of tumors, the preference must be given to early operation, which should be as thorough as possible, and followed by x-ray treatment.

The following conclusions on the value of x-rays and radium in the treatment of malignant disease may be drawn:

1. These agents are most valuable aids to the treatment of these conditions in so far as by their use we can induce changes in tumors which are unattainable by any other agent at present in use.

2. X-rays and radium may be used separately or combined in the same case, and in some instances it is advantageous to alternate the use of the two.

3. In so far as it is possible to demonstrate profound changes in inoperable growths of large size, it is logical to arrive at the conclusion that cancer tissue of small size, left at the time of operation, may, by post-operative treatment, be rendered inert, and recurrence of the growth prevented. It is therefore sound policy to insist on post-operative treatment of all cases submitted to operation. The post-operative treatment must be carried out with as complete thoroughness as when we are attempting to induce resolution of a growth of considerable size. When a thorough course of treatment has been applied, the patient should be instructed to come at intervals for inspection, and if necessary, for more treatment, for two or three years after operation.

4. Other methods of treatment must not be neglected when radiations are used. The use



of drugs that aid the action of radiations, is of value. Pfahler advises thyroid extract as assisting in tissue metabolism. Soda following treatment is of use in relieving the post-treatment nausea and malaise.

In conclusion, the proper treatment by any means of radiation entails the administration of sufficient dosage to accomplish a result. This is one of the reasons why the great value of this form of treatment has not been given proper acknowledgement. Many cases of malignant neoplasms have not been affected by the radiation more than as it has acted as a stimulant in producing more rapid and fatal termination to the patient. The end result in treating this type of lesion depends absolutely on approaching it with a proper knowledge of the amount of radiation required, and the subsequent application of this dose.

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### THE DEAD-BEAT\*

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The subject under consideration was suggested to me by some of our medical friends. I suppose they thought that a man who had practiced medicine as long as I have, and had no more to show for his work than I have, must have been a good subject and an easy victim for the "dead-beat." And I must say they have diagnosed the case correctly for I have found no specific for this most common and distressing disease.

I believe it is customary in discussing diseases before a medical association, to give 9/10 of the allotted time to tracing up the history of the disease under consideration—, who discovered it and when—, who improved on the treatment and how—, etc; all of which is ancient history to all well informed doctors, and wind up by giving a few vague and indefinite suggestions.

I do not propose to enter the field of chronology of the dead-beat, further than to state that it is of very remote origin; and that it has af-

flicted humanity from remotest antiquity, if not from the very beginning.

This might lead us to believe it inherent in the fundamental principles of human nature. I will only remind you that it sometimes cropped out even among the old patriarchs.

You will remember that old Laben dead-beat Jacob out of 14 years of labor, paying him off by making him marry two of his girls; a remuneration which might be obtained now with a few tickets to a moving picture show, a few drinks of dope, or a few extra high steps in the "tango."

I can only define the "dead-beat" as an animal similar to a man, only his brains are located in his tongue, and his hands in the other fellow's pocket—a peculiar kind of a human sponge that cannot be squeezed without soiling the hands.

There are several varieties of this disease but I shall only mention a few which are especially destructive and generally found in the vicinity of the doctor's office.

The most common and most dangerous of this class is the man who has recently moved into your territory. He generally begins operations by telling you how much he paid out to doctors in his former home, from \$100 to \$500. But Drs. Smith and Jones didn't seem to understand the case; and that he has heard of your success in similar cases, and after consulting with some of your clientele he has decided to give you the benefit of a trial. Gentlemen, beware of the flatterer.

Another dangerous type is the man of some means, and who thinks he has conferred a great favor on you when he lets you do his practice, and seems to think that his patronage is sufficient remuneration for your services; and that his account will do as much good as the money. These generally try to bluff you by pretending to be offended when you present your bill after waiting patiently and doubling up for two or three years. And he finally agrees to pay a part of it if you will await his convenience for the balance, and plainly indicates that if you press him he will use all his powerful influence to spoil your practice. Not honest enough to pay an honest debt, but too rich to be dunned. From all such may the Good Lord deliver us.

(Continued on Page 857)

\*Read before the Eighth District Society, Eatonton, Ga., Aug. 10, 1921.

# THE JOURNAL

OF THE

**MEDICAL ASSOCIATION OF GEORGIA**

Devoted to the Welfare of the Medical Profession of Georgia.

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

## EDITORIAL DEPARTMENT

### MEDICAL ECONOMICS

The world is undergoing an economic readjustment with a degree of stress without precedent in history and perhaps the medical profession is now receiving more than its share of the brunt, because professional expenses have never been so high and the great middle lower class of society has become so little able to pay. While the doctors' bill has always been a deferred debt and will continue so, the period of war prosperity proved that, nearly every one did pay the doctors' bill when money was plentiful, and the delinquents were then few. Sickness with its non-productiveness, has enlarged the per cent of unwilling delinquents and should not the profession view this condition palliatively as did the banks one year ago.

While professional services are a commod-

ity it is not esteemed so in the minds of the laity and public sentiment in its slow process of evolution has to be reckoned with. Drastic measures will accomplish very little in expediting this process and may bring about even a worse condition of affairs than we already have. In this great democratic country professions as well as businesses cannot endure without a public good will.

"H"

### CLIMATE AND TUBERCULOSIS

Not so many years ago the advice commonly given to the sufferer from tuberculosis was "Go west and rough it." Of those who followed this sort of suggestion some, to be sure, did recover in spite of the "roughing it." There was supposed to be some sort of magic in the high and dry climate of the west which could arrest the development of tuberculosis, irrespective of the work and life led by the patient.

Investigations carried on by the National Tuberculosis Association and its 1200 affiliated organizations in all parts of the country have established the fact that, speaking generally and with certain rare exceptions, tuberculosis, if the treatment is begun in time, can be arrested in any climate, provided the patient is given the proper care which includes the three great fundamentals of sufficient rest, good food and fresh air. This conclusion is based on the findings of world-famous authorities on tuberculosis and the records of sanatoria located at all points from a few hundred feet above sea level within sight of the ocean to the mile-high sanatoria in the heart of the Rockies. Therefore, the Association, as part of its widespread educational effort, has tried to impress upon the victims of tuberculosis that unless they have sufficient funds to provide for their care anywhere, they should take the treatment at a sanatorium near their home town.

In spite of this advice, there are literally thousands of persons who call themselves in many cases "cure chasers," who wander from one section of the west or southwest to another, in an effort to find what they call an ideal climate. These are quite dis-



tinued from the well-to-do patients who can afford to pay for proper treatment and are in reality indigent migratory cases who find it necessary to apply for assistance to municipal agencies in the various places where their wanderings take them.

An investigation just completed under the auspices of the National Tuberculosis Association has covered the cities of Colorado Springs, Denver, El Paso, Phoenix, Los Angeles and San Antonio and shows that a total of 7,319 tuberculosis individuals were cared for wholly or in part by municipal agencies in those cities in the course of a year. Thus, there was on an average one indigent tuberculosis person to every 155 of the entire population in these cities.

How far these were cure chasers of the indigent migratory tuberculosis type was made clear in the report of Miss Jessamine S. Whitney, Statistician of the National Tuberculosis Association, who says:

"Sixty-three per cent. of all the tuberculosis in the six cities, for whom length of residence was known, had resided there less than two years, at the time they applied to the agency. I am inclined to think that any person who has resided less than three years should be classed as migratory. If this division is made, then 75 per cent. of all cases can be classed as 'non residents.' In the Denver study, even among the 484 classed as residents (having resided two years or over) all but 73 had come originally as health seekers, or with a member of their family who was ill."

The term "cure chaser" is self assumed and reflects the optimism with which these thousands leave their homes and friends and set out to find a climate which agrees with them. At the same time they expect to find there some form of "light outdoor work" by which to support themselves. Speaking generally, such work does not exist or not enough of it to furnish jobs for more than the merest fraction of the cure chasers who arrive by scores every month in many western and southwestern cities. Failing work, the natural result is that sooner or later many of these unfor-

tunates will be obliged to turn for help to the welfare agencies of the cities in which they find themselves stranded.

As an indication of the fact that a wrong idea will persist in spite of powerful educational forces brought against it, it is interesting to note that more than half of this migration of indigent health seekers come from a relatively small group of states. These are in order of the number of cases recorded, Illinois, New York, Missouri, Ohio, Pennsylvania, Michigan, Indiana, Kansas, Nebraska, Oklahoma and Minnesota. Texas and California were also given as legal residence in a large number of cases, but the former only in the Los Angeles records and the latter for the Texas cities, so, these furnish an example of persons without funds to justify their traveling and shifting between two states in quest of the same thing—an ideal climate for tuberculosis.

All this has been known in a general way for years but the report just prepared as a result of the investigation gives the National Tuberculosis Association and its affiliated organizations further data which may help in dissuading tuberculosis patients from starting out on a fruitless quest. As far as the records are available the mortality among the indigent migratory or "cure chasers" was a ratio of one death in every eight cases. Yet, more than half of those who came to municipal agencies seeking aid, afterward evidently moved on to some other place, for 54 per-cent of them dropped out of sight. Of the remainder of the records studied, 13 per-cent had died, 10 per-cent were definitely known to have moved out of town and only 23 per-cent were still in the city.

As might be supposed, the majority of the cure chasers are men. The report shows that 72 per-cent of the non-resident cases which applied for help in the cities were men and only 28 per-cent women. Also, 70 per-cent of the men came without their families, while only 29 per-cent of the non-resident women were alone. As to the time when the cure chaser's funds run out and the real tragedy begins, the records indicate that 38 per-cent of the men applied for help within a month



after their arrival in the city of their hopes while only 19 per-cent of the women made application as early in their stay.

To end this tragedy with all it implies of hardship, homesickness and physical suffering is one of the many tasks which the National Tuberculosis Association has undertaken in co-operation with its affiliated organizations. In the fifteen years since the Association began its work, the death rate from tuberculosis in this country has been reduced from 200 for every 100,000 population to 120 per 100,000. Yet, there are today over a million active cases of the disease in the United States and the number who died from it last year was no less than 132,000. Hence, there is still much to be done if this is to continue a winning fight. The public can help by purchasing Tuberculosis Christmas Seals, the little one-cent stickers which provide funds whereby the work of the Association and its affiliated organizations is financed.

#### ABOUT FEES.

A while ago the trustees of Johns Hopkins Hospital concluded that doctors were making too much money and that fees should be cut and, being in the habit of dictating or endeavoring to, they said we must not charge more than \$1,000 for any operation upon anybody. Of course we knew we did not have to submit to dictation from them and we wondered what effect their dictum would have. We are finding out, and, from the looks of things, nobody seems to agree with that august body. We had an idea that the lay press would have much to say favoring that \$1,000 fee, but the editors thereof do not seem to agree with the Baltimore gentlemen in the least. Collier's of September 10, 1921, says:

#### "HANDS OFF THE DOCTORS!"

"Some time back the Johns Hopkins Hospital trustees named \$1,000 as the maximum fee that ought to be charged for any operation. The public at large immediately jumped to the conclusion that overcharging by doctors was common throughout the country and that all fashionable practitioners were being censured.

"Now, nothing could be more untrue. The medical scamp, the quack, the selfish money seeker has been well-nigh driven from the ranks of the profession. Taken by and large, medicine is today the least commercialized, the most overworked, and the most underpaid of the essential professions—excepting only teaching and the ministry.

"Nor are we inclined to cavil at the rather common practice of 'charging what the traffic will bear.' Fees cannot be standardized, and there is ample ethical justification for charging Mr. Moneybags \$5,000 to yank out his appendix if thereby Dr. Soakum is given leisure to operate for nothing on a dozen tenement-house children in the clinic.

"Hands off the doctors, for they are not of the profiteer class. And even the big chargers never get their bills paid until the last—until the butcher, the baker and the garage man have got theirs."

Too bad Collier's said nothing about the landlords, for they have the doctors beaten a Salt Lake City block, when it comes to profiteering. Of the editorial, as a whole, we would say, "them's our sentiments."

—Western Medical Times.

#### RESOLUTIONS ON THE DEATH OF DR. EDWARD G. JONES, OF THE GEORGIA BAPTIST HOSPITAL STAFF, DIVISION OF SURGERY.

Whereas, in the course of human events, the last remaining unconquered and unconquerable enemy of mortal man, has removed from the sphere of his activities our beloved co-worker, teacher, counsellor and friend, Dr. Edward G. Jones, and

Whereas, The beneficent influence of his labors, because of the indomitable spirit he possessed, and in spite of many physical handicaps, had been extended to the four borders of our Country, reflecting credit upon the profession of the South, in which he occupied such an enviable position, particularly in the field of Goitre surgery, as well as eliciting for him the universal adoration of his confreres, though he sought only to serve and counted not the glory, and

Whereas, In the activities of this institution, to which he gave a long and faithful service, furnishing in large measure its patients and guiding with care to minutest detail, its policies in the uncertain years of its early history, we have been privileged to sit by his side; to profit most by his counsel, and to enjoy in a peculiar way many intimacies of his life, have suffered, in his going, and irreparable loss, and

Whereas, His life as a citizen; as a husband and as a father, was actuated by high and holy purposes, to which sentiments he stands forever committed in the closing paragraph of his presidential address to the members of the Medical Association of Georgia, Macon, May 1920, as follows:

"Standing as we are today at the threshold of a future where oracles are dumb, an inspiration powerless to wing its flight; a future beset by gravest problems and uncertain as never before to foster moral citizenship and genuine Americanism, has come to be, as I believe, the peculiar function and opportunity of the South; an opportunity which I am sure it will discredit us to neglect and which I am equally sure, it will distinguish us to embrace."

THEREFORE,

BE IT RESOLVED, That with a deep sense of appreciation of our loss, which is now keenly felt by the many medical organizations to which he was attached, but whose real misfortune is now apparent, a copy of these resolutions be spread upon the minutes of our Staff; that a copy be sent for publication in the Journal of the Medical Association of Georgia, and that a copy be mailed to the family of the deceased.

Respectfully submitted,

C. W. Roberts,

E. S. Byrd,

G. E. Clay,

Committee.

## REPORT OF MEETING OF ATLANTA NEUROLOGICAL SOCIETY.

The regular meeting of the Atlanta Neurological Society was held in the office of Dr. Gaines on Oct. 28, 1921. The meeting was called to order by the president, Dr. Gaines.

Dr. E. Bates Block reported the following cases:

First Case:—

The patient was a man, age 28 years. There was nothing in the Family History except that the father died of Cancer of the lip and had the morphine habit. There was nothing in the Past History except that he had a fall at the age of 14 years on the back of his neck and head and was injured in the region of the 7th cervical vertebra.

Present Illness began in 1917 before going into the army and was made worse by service in the army. Chief symptoms were marked difficulty in walking with a reeling, drunken gait. General weakness and easily exhausted. Sense of smell was good. Eye examination showed atrophy of the nerves in both eyes, right more marked than left. rt. vision 20—120 and left. 20—40. The optic nerves were pale with concentric contraction of both visual fields, rt. more than left. Fifth nerve negative. Seventh nerve shows slight weakness in left corner of mouth and right palpebral cleft smaller than left. Hearing was good. There was occasional strangling in attempting to swallow. There was some disturbance of the heart rate from 84 to 110 and respiration varies from 18 to 22. B. P., systolic—136, diastolic—70. Eleventh nerve shows muscular jerking of both trapezi and sterno-cleido mastoids producing a rotary movement of the head recurring from time to time. The tongue deviates slightly to the left. There was no mental trouble. Marked scanning speech. All arm and leg reflexes exaggerated. Ankle clonus was present with Babinski and Chaddock both sides. Abdominal reflexes absent. Decided ataxia of arms and legs. Right dysdiadochokinesia. Marked Rhomberg and tremor of hands. Examination of urine, blood, and stools negative. Blood and spinal fluid Wassermann negative.

Diagnosis: Multiple Sclerosis.



## Second Case:—

The patient was a girl age 17 years. Chief symptom was difficulty in walking. The father and mother were each one of twelve children. The father had twin sisters. Father's aunt was insane. Mother's father had palsy. Mother's sister had attacks of unconsciousness. Patient has a sister age 9 years who shows a beginning tendency to Friedreich's Ataxia; also supernumerary nipples. Past History unimportant.

Present Illness—Showed first evidence of trouble at the age of nine years when ankles seemed weak and there was no strength in walking. She has now reached the stage where walking alone is difficult and often impossible. Speech is drawling, slow indistinct and has been so for three years. Handwriting is large, unstead, and wavering. Smell is normal. Sight normal. Eye movements good but there is a lateral nystagmus to both sides. Fifth nerve negative. Seventh negative. Eighth nerves negative. Spinal accessory negative. Hypoglossal negative. Patient has a supernumerary nipple below each normal nipple—that is, four nipples in all. She did not menstruate until over sixteen years of age. There is a slight spinal curvature. Hypotonia of arms and legs. Marked incoordination in walking. Rhomberg present. Muscle strength poor. Dysdiadochokinesia both forearms. All tendon reflexes lost. Babinski and Chaddock reflexes present both sides. Hallux erectus. Abdominal reflexes all present. General motor restlessness. Slight defect to sensation to touch in both feet. Stereognosis good. Sensation to touch and pain slightly defective in ankles and feet. Blood and spinal fluid Wasserman negative. Urine examination negative.

The case is particularly interesting on account of the presence of supernumerary nipples which is an evidence of defective development or a stigma of degeneration. Attention is called to the fact that congenital cataract has also been reported in connection with a case of Friedreich's Ataxia as the lense is formed in the same manner as the mammary glands in embryological life. Also a case of hyposphadias has been reported in

connection with Friedreich's Ataxia which is likewise due to a defective closure of the genital groove.

Diagnosis; Friedreich's Ataxia.

### Discussion.

**Discussion Dr. Bunce**—These cases are indeed instructive. The spinal fluids showed nothing of any particular interest when we examined them.

**Dr. Brawner**—We have found the presentation of these cases very interesting. We know of course that in the first case numerous plaques of sclerosis occur, probably more thickly in the cerebellum and cerebellar tract, these regions showing most involvement.

The second case is probably one of the hereditary diseases with degeneration of parts of the nervous system. Those involved most in this case are probably the posterior tracts of the cord and the cerebellar tracts. We often find atypical cases which vary as to the location of the greatest involvement. Here the cerebellar and posterior tracts are more involved than the cerebellum itself.

**Dr. Dowman**—We would like to ask Dr. Block concerning the possibility of focal infections underlying cases of Multiple Sclerosis. Both cases are almost of a text-book character in the presentation of findings. The first probably is slightly more ataxic than the average.

The second case was examined by us at the Crippled Children's Hospital. We are particularly interested in this because last year we examined two patients who conformed exactly to Friedreich's Ataxia but who had a positive Wassermann. The differentiation between this and Marie's Familial Ataxia hinges on the deep reflexes. In the former the reflexes are absent while in the latter they are exaggerated.

**Dr. Young**—The most interesting part of the presentation to me has been the number of suggestive hints linking this last disease up with other degeneration stigmata. It certainly stimulates one to study further this connection in the hope of arriving at a positive etiology.

**Dr. Gaines**—In the case of Friedreich's Ataxia Dr. Block hinted at a possible endocrine disturbance. It is so much the vogue to put everything off on the endocrine glands that one rather hesitates to mention them. But there is that possibility. Nothing was said as to treatment. We should like to ask concerning this.

**Dr. Block (closing)**—We shall first answer Dr. Dowman's question concerning the connection of focal infections with Multiple Sclerosis. A spirillum-like body has been reported found in the plaques of sclerosis. It seems to be pretty generally accepted that this body is the cause of the disease. Years ago before this discovery we hit upon the use of mercury, iodides, and arsenic in these cases with



very good results. The reason for the improvement is probably due to their action on the organisms.

In connection with the relation of endocrine disturbance with Friedreich's Ataxia; the case presented showed; absence of pigmentation; defective hair growth on pubis and under arms; and delay in onset of menstruation. She undoubtedly has defective adrenal secretion. She has been taking adrenal extract and is undoubtedly better. In addition she is getting re-education exercises.

**Dr. Chas. E. Dowman** related the following case: This patient illustrates the value of Dandy's ventriculography. He complained of headaches and defective vision. He was neurologically negative except for choked disc. The right ventricle was tapped and the fluid found under greatly increased pressure. Air was injected but would not go over into the left as it normally should. The left was tapped and showed the same picture and no air would go over into the right ventricle. It was concluded that there was a tumor of the third ventricle blocking the Foramen of Monro. Operation: the cortical vessels were ligated; the brain retracted; and the posterior corpus collosum cut thru. The right ventricle was entered and nothing found; the interventricular septum was cut and the left ventricle entered. Nothing was found here. The intraventricular space was then entered and a tumor found well encapsulated lying between the foramina in the third ventricle.

W. W. Young, M. D.  
Secretary.

### MIDWIVES AS VIEWED BY THE POLK COUNTY MEDICAL SOCIETY.

The Secretary of the Georgia State Board of Health has sent abroad to the physicians of the state certain printed papers, so called "Eight lessons of instructions to midwives" with the request that the physicians teach the same to midwives.

Whereas—Such teaching or instruction could not materially increase the efficiency of the midwives who are both ignorant and superstitious but would have the tendency to elevate them in the minds of the laity by appearing to have the endorsement of the profession, and

Whereas—The life of mother and child as well as their future health depends largely upon the skill and efficiency of the attendant; it is necessary that such attendant should be thoroughly competent, which competency can be obtained only by thorough training and study. The profes-

sion does not recognize or attempt to teach the chiropractic and other forms of so-called practice, neither should we do so with the midwives to the detriment of the public.

Therefore—Be it resolved by the Polk Co. Med. Society. In the interest of suffering womanhood and unborn infants affirm that "A Little learning is a dangerous thing," therefore resent and condemn this request of the Secretary of The State Board of Health and decline to in any manner promulgate such so called teachings.

E. H. Richardson, Pres.

W. W. TISON, Sec.

### LESSONS FOR MIDWIVES\*

The midwife is one of Georgia's health problems. In an effort to improve the situation eight lessons for the midwife have been prepared and sent to the local registrars with the idea that they get the local doctors to help educate the midwife of the community.

Enclosed you will find a set of these lessons. We hope that your Medical Society will take action and assist us in our endeavor to educate the midwife.

Fraternally,

T. F. Abercrombie, M. D.,

Commissioner of Health and  
Collaborating Epidemiologist.

### LESSONS FOR MIDWIVES

#### 1.

The purpose of these lessons is to give in a simple way those things which the midwife most needs to know. They are designed to show the necessity for the most thorough cleanliness; what the midwife should teach the mother as to how she should live before the baby is born; what articles the midwife needs to take with her and how to use these articles; what labor is and how to recognize some of the dangerous occurrences; how to take care of the mother after the baby is

\*Letter from Dr. Abercrombie to Secretaries of County Societies. The entire set consists of eight lessons. For the information of our members we are publishing the entire set. We invite comment from the profession.

born and finally how to take care of the baby.

Let us begin by explaining three things that the law requires of the midwife; unless she attends to all of these things she is liable to arrest and imprisonment. The law requires (1), that the midwife must register with the local registrar; (2), that she must put a drop of silver nitrate solution (1%) in each of the baby's eyes soon after it is born; (3), that she must report the baby's birth within ten days (see that the baby has a birth registration number).

The midwife must always take every opportunity to keep in close touch with the doctor and nurse in her neighborhood. She should call in the doctor if anything seems different than usual and should always follow his advice and suggestions closely.

The most important lesson is cleanliness; the midwife should not only have clean hands and clean clothes on the day of confinement, but she should make a practice of keeping her body, hair, hands and clothes clean at all times. Most of the child-bed fevers are caused by germs that grow in dirt. If the midwife is very clean, keeps her clothing clean (or at least wears a clean apron), scrubs her hands well and will also see that the mother and the bed are clean, few mothers will die in child-bed.

## II.

Before a mother gives birth to her baby she is said to be pregnant. A pregnant woman must be taught that the baby is only well born if the mother is in good condition before her baby comes. The midwife must explain to her that she must pay especial attention to—

1. Diet—Her food should be plain and nourishing; at least a quart of milk, cereals, fruit, green vegetables, bread and butter, eggs and a little meat every day, with at least 6 to 8 glasses of water.

2. Bowels—On the above diet the bowels should move easily every day; if they do not a doctor should be consulted.

3. Skin—A warm bath should be taken three times a week to keep the skin clean.

4. Kidneys—Urine should be examined

by a doctor once a month; the kidneys sometimes become affected, but even in that case if proper care is taken the patient will not die.

5. Nausea and Vomiting—from the 5th to the 12th week nausea and vomiting are common; this is called "morning sickness"; if it is very severe or lasts longer than 12 weeks the doctor should be consulted.

6. Breasts—These should be washed every day and the nipples kept soft with clean vaseline or mentholatum. If these are cracked a doctor should be consulted.

7. Discharge—If there is much discharge from the birth canal the doctor should be consulted.

8. Clothing—Clothing must be as warm as necessary but of a loose, light weight; it should not be tight over the breast nor the waist, and round garters should not be worn.

Varicose veins (milk leg) may be relieved by lying on the back and raising the legs so that the feet are higher than the head.

The danger signals of pregnancy are severe vomiting, headache, swelling under the eyes and of the feet, dizziness and bleeding. These symptoms mean usually that the kidneys are not working right or that there is some harmful condition in the womb. In either case they are signs that show the mother is in grave danger of losing her life. A doctor must be called.

## III.

The midwife is to see that the patient is supplied with the following:

1. One newspaper pad made as follows: take twelve full-size sheets of newspaper, sew them together and cover with clean white cloth; if possible put a layer of cotton between the sheets.

2. Three dozen pads ten inches long and four inches wide made of clean white cloth or cheese cloth with a thick layer of cotton between.

3. A package of ten hand towels; package covered by another towel.

(All of these things may be made from one pound of absorbent cotton, two rolls of cot-

ton batting and ten yards of old white cloth or cheese cloth).

To sterilize the above, and also the nightgown and white stockings which are needed, use a washboiler with about six inches of water in the bottom. Pin each end of a towel to the handles of the washboiler, thus making a shelf upon which the various articles are placed. The small articles are to be placed in a pillow case first. Put the cover back on the washboiler so that it fits very snugly and no steam can escape. Then set the boiler on the stove and let steam for two hours. Remove at the end of that time and spread out on clean place to dry. The reason for sterilizing the goods is to prevent the growth of bacteria (the same reason as that for sterilizing fruit jars in canning.)

In addition the midwife should see that her patient possesses the following:

1. Two or three nightgowns.
2. One pair of long white stockings.
3. One and one-half yards of rubber sheeting (white oil cloth will do).
4. Two papers of safety pins.
5. Three hand basins.
6. Two pitchers.
7. One slop jar.

The next lesson will tell what supplies the midwife must have.

#### IV.

The midwife must have a bag in which are all her necessities, always sterile and always ready for immediate use. In this bag must be a clean, sterile apron. (It is much better if the midwife will have a special white gown). The bag must contain all that the midwife needs, but must not contain any unnecessary articles. In addition to the clean white sterile apron (or gown) there must be—

1. Castile soap.
2. A bottle of lysol.
3. One tube vaseline.
4. One new nail brush.
5. One fountain syringe.
6. One hot water bottle.
7. One bedpan.
8. Several pieces of narrow white tape nine inches long; these in a small sterile package.

9. A container of 1% silver nitrate.

When the midwife gets to the patient's house and she has taken care of arranging the room, etc., she should give her hands a thorough scrubbing with hot water and soap and finish up by washing them thoroughly with the lysol solution. (1 teaspoon of lysol in a quart of water.) After she has washed her hands she is ready to prepare the patient.

#### Preparation of the Patient—

1. When the patient is really in labor (the signs of labor will be explained in the next lesson) the first thing that the midwife is to do is to give the patient an enema. To do this she fills the douche bag with two quarts of warm soap water; she greases the tip with vaseline; then she hangs the bag on a nail slightly above the height of the bed; the patient lies flat on her back with the douche pan under her buttocks; the midwife inserts the tip into the anus and allows the water to flow; this continues until the patient can no longer contain the water; the tip is then removed and the bowels emptied; the same procedure is gone through until the bag is emptied, the patient each time making an effort to hold the water so long as possible.

2. The next step is to clip as closely as possible the hair from the surrounding parts; this should be clipped very closely and then shaved off.

3. Then the parts are to be scrubbed gently, but thoroughly, with soap and warm water, followed with a lysol solution. (This solution is made by adding one teaspoonful of lysol to one quart of water.)

The patient is ready for delivery as soon as the rubber sheeting has been put under the bed sheet and the large newspaper pad on top of the sheet; the various articles are placed on a table or chair in a convenient place where they are not likely to be touched by any one except the midwife. The midwife again scrubs her hands thoroughly, rinses them in the lysol solution and is ready for the delivery.

#### V.

At the end of forty weeks the child is ful-



ly developed; the womb has become thickened and its muscles very strong and the child is now ready to be born. But before the child can be born the opening of the womb, which is ordinarily closed, must get thinned out and stretch open; this takes some time and is accompanied by some pain. Usually for a few days before confinement the mother will notice backache and an increase of the discharge from the birth canal. The pains may come for a few hours at a time and then stop altogether or they may occur irregularly during the day or sometimes only at night. But when labor really begins the pains become more regular and gradually closer together until cramps come every thirty to ten minutes at first, and the midwife can feel the muscles of the mother's abdomen becoming very hard and firm with each pain.

The bag of water breaks without paining the mother; she feels just a warm gush; the patient must be taught to call the attendant as soon as she notices a bloody discharge, any severe backache or when the bag of water breaks.

If the child is in the usual position, the next thing that the midwife will notice is the head of the child presenting in the birth canal. She must not, in an effort to make the birth quicker, press her hands against the mother's abdomen. She must rather place her hand gently but firmly against the baby's head so that it is not born too quickly, since when the baby is born too quickly it may result in bad tears of the mother. The head is born and it is soon followed by the baby's shoulders and body. The baby should be held up so it may be seen whether it is breathing or not; if it is not breathing the midwife pats it on the back, slaps it with a wet towel, rubs its throat gently from the chest up to the chin (to rid throat of mucus) and does not stop in her efforts until the baby begins to breathe or its heart has stopped beating for 10 minutes; then its mouth and eyes are wiped with a piece of clean sterile white cloth and it is placed on its back and one drop of the silver nitrate is placed in each eye. It is then

wiped off with sterile olive oil (or vaseline) and placed on its abdomen until no pulse can be felt in the cord. This will take at least 15 minutes; the cord is then tied off with a piece of the sterile tape and the cord is cut. The cord is tied in two places and the cut is made between these places; there should be at least an inch and a half of the cord left after it is cut. Boric acid powder is sprinkled over the cut end of the cord and a small square of three or four layers of sterile cloth are tied in position over the end. The baby is then wrapped in a clean blanket and placed in its bed, which is out of the way.

The delivery of the after birth will be discussed in the next lesson.

## VI.

The after birth usually is born within 30 minutes after the baby is born. The midwife must make no pressure on the abdomen to hasten this, as she may start a severe hemorrhage. It is better to wait, no matter how long it takes for the after birth to come. After this is born the midwife cleanses very gently the surrounding parts with a piece of sterile cloth and warm water, being very careful not to touch the entrance of the birth canal nor the birth canal itself. The midwife places a pad between the patient's thighs, removes the newspaper pad and straightens out the bed; the patient is usually made more comfortable if her face is bathed with cool water and she is given a cup of tea. The patient needs rest above everything else and should therefore be left alone and the room made quiet; if the birth has occurred in the daytime the room should be darkened. The following are things that the midwife must remember:

1. She must not pass her fingers or an instrument up the birth canal of the patient for any purpose whatever at any time during pregnancy or labor, nor may she give an injection into the birth canal.

2. A midwife must not give drugs to hasten labor or for any other purpose than to serve as a gentle laxative.

3. If the baby is not born within 24 hours she must secure a physician.

4. If the body of the child is born first

it should be supported on the right forearm and if the head is not born in a few seconds the child should be held up by the feet and gently pulled, because unless it is born in a short time it will smother.

5. If the child's hand comes down send for a doctor right away; it is in a cross position and it cannot be born alone.

6. If the mother has a spasm or bleeds before or after the child is born, or is very weak, the doctor should be called; also if the mother seems feverish send for the doctor immediately, as she is in danger of dying in child-bed in all of these conditions.

After care of the mother will be described in the next lesson.

## VII.

No mother should leave her bed before the ninth day. She may sit up a little while in bed by the sixth or seventh day if she feels well enough. On the ninth day she may sit up for a little while in a comfortable chair next to the bed if she does not get dizzy. On the twelfth day she may take a few steps around the room, but she must not climb stairs before the end of three weeks. She must do only the lightest kind of housework before an additional three weeks are up. The midwife must see that these directions are carried out. A great many "female troubles" date from this time because the mother has not had sufficient time to rest after the child has been born.

There should be frequent changes of the vulvapad at least three times a day, the discharged should gradually change from red to brown and then to white. The patient should have a sponge bath daily, warm soap water with gentle scrubbing. An abdominal binder and a breast binder should be used only for unusual conditions and a doctor should advise these before the midwife uses them.

Two or three days after the birth of the baby the breasts begin to fill with milk. The baby should be put to the breast six hours after birth and from then on every six hours until the milk comes. The nipples must be kept clean; before and after each nursing they should be washed with a boric acid

solution. The mother should have a generous diet, including at least a quart of milk per day. 95 to 100 per cent of mothers can nurse their babies, so if the milk is scanty or the baby does not increase in weight keep on trying, but see a doctor. Sometimes a mother is nervous, tired out and so gives little milk. She must learn to lie down while nursing the baby; breast milk is the only food for a baby and the mother must be taught that the life of her child may depend upon whether it is getting breast milk or not. In any case if the baby must be taken off the breast the doctor must do this. Don't put the baby on any kind of artificial food or even on cow's milk without doing so by the doctor's orders. "An artificially fed baby is a sick baby."

## VIII.

The midwife should give the following list to the mother so that she may prepare proper clothing for the baby. The garments must be warm but not heavy; they should fit loosely and be simply made.

A square of flannel.

4 strips of soft flannel 8"x16".

4 shirts of cotton and wool mixture.

2 pairs of stockings.

4 outing flannel petticoats buttoning on shoulders.

4 slips.

4 outing flannel nightgowns.

12 or 14 diapers (18 inches square) made of birdseye.

The diaper must be adjusted so that the pins come over either thigh and not over the front of the abdomen as is the case with diapers where the end is pulled tightly up into the crotch.

The nursery equipment may be an old clean blanket, safety pins, soft old towels and clean soft pieces of old white tablecloth, etc., for wash cloths; hot water bottle with cover, talcum powder, olive oil and castile soap. A large clothes basket with a small hair mattress covered with a small piece of oil cloth, on which is a piece of outing flannel, and plenty of warm but light cover. The midwife must insist that the baby sleep by itself.



The midwife must wipe the baby's eyes daily with a clean piece of cloth which has been dipped in boric solution. If possible the cord dressing should be changed only once before the stump falls off. It is very important to keep the stump free from germs; the germs that enter here come because the dressing is dirty or has been moved by soiled hands; these germs usually result in the death of the baby. If the baby has a discharge from the eyes, or if a girl, from the vagina, a doctor should be consulted immediately. In warm weather the baby may receive its first bath the day after it is born. The water must be very warm (body temperature). For young infants it is better for the attendant to place a large turkish towel on her lap, undress the baby and give him a gentle warm soap scrubbing (use mild soap), rinse him off gently, and pat rather than rub him dry; then powder with a smooth mild talcum powder. Apply the binder firmly but not tightly, being careful that the cord dressing is not disturbed and that there are no wrinkles in it. The baby is put to the breast every six hours for the first day or two and then is put on a three or four hour schedule as follows:

6 A. M., 9 A. M., 12, 3 P. M., 6 P. M., 10 P. M., or 6 A. M., 10 A. M., 2 P. M., 6 P. M., 10 P. M. One night feeding may be given. The baby is to be given a little cool, boiled water to drink every few hours. A healthy baby cries only when it is hungry or uncomfortable because of wet or tight clothing, etc. It is never too early to hold the baby to a very definite schedule; the baby is never too young to be spoiled; teach the mother that she will avoid a great deal of work, nervousness and unhappiness and will have a healthy normal baby only if she sticks closely to the rules you have taught her.

At a regular meeting of the Clarke County Medical Society, on Friday, November 4, 1921, Dr. Jas. C. Bloomfield was elected an Honorary member to the Clarke County Medical Society. Dr. Bloomfield who is retiring from active practice has been for many years a mem-

ber of this society and was one of its first presidents.

Drs. J. C. Johnson, John B. Fitts, and Trimble Johnson announce the removal of their offices from 701 Hurt Building to the Doctors' Building, 436 Peachtree St., Atlanta, Ga.

Dr. G. W. Holmes Cheney, formerly at 20 Ponce de Leon Avenue, announces the removal of his office to 746 Peachtree Street, Atlanta. Diseases of children including Ear, Nose & Throat. Office Phone Hemlock 342. Residence Phone Hemlock 957.

Dr. Charles M. Remsen will continue in practice at 471 Park Avenue, New York City, after October First.

#### DR. HENRY W. TERRELL.

Dr. Henry W. Terrell died suddenly at his home in LaGrange, Georgia on November 23rd, 1921, at fifty years of age.

He was a scion of one of the most distinguished families of the state. His father who died in 1886 spent a long, useful and distinguished life in the practice of medicine. One beautiful example of this is a memory which I shall cherish for life. My mother was sick unto death, my father wished his services. It was late at night and he lived fifteen miles away. I was quite a young boy, but I made this fifteen mile trip leaving home after twelve at night. I arrived at Dr. Terrell's home after two o'clock in the morning. When I rang his bell he groped to the door, opened it and stood before me a decrepit, almost totally blind, tottering old man. He told me that he was blind and could not drive, but if I would put my horse in the stable and drive for him he would make the trip. We arrived at my home in the early morning hours before it was light, my mother was dead. He followed her in death a few months later. The willingness of this grand old man to make a trip like this to see a sick woman when he felt that he might not live through the trip himself is a sweet memory of a beautiful character which to me has been an inspiration.

Dr. Terrell emulated his father. It is a great



sorrow to us all and a great loss to his people for him to have been cut down so early in life. He was the youngest of a family of five boys and one girl, all of whom are living except the late Governor J. M. Terrell.

Dr. Terrell held many positions of distinction and honor. For many years he was President of the Board of Education of LaGrange. He was intimately associated with the LaGrange hospital from the time of its founding. He rendered valiant service in the late war both in Red Cross work and as a member of the Advisory Board of Medical Examiners of the Fourth District. He succeeded the late Dr. Ridley as a member of the Medical Examining Board of Georgia. For many years he was Councillor for the Medical Association of Georgia from the Fourth District, resigning this position at the last meeting of the Association on account of having been elected Vice President.

The writer has known Dr. Terrell since his childhood. As a boy, as a man, as a physician, he was loved.

E. C. THRASH.

## ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

By M. Ford Morris, M. D.

**Action of Potassium Chloride in Renal Dropsy.** Blum, Aubel, and Hausknecht, (Bull. de la Soc. Med. des Hop., July 29, 1921,) following considerable research work in reference to the action and elimination of potassium chloride and sodium chloride in renal dropsy, conclude that the sodium in the tissues is displaced by potassium; and, that, as sodium chloride retention is the cause of the dropsy, the administration of potassium chloride liberates the sodium chloride and in that way causes elimination of edema.

**Action of Kinidin on the Heart.** During the last two years, some experimental work has been done, in different countries, on the effect of kinidin, or quinidin, on the heart. Lately, Arrillaga, Guglielminetti, and Wal-drop (Rev. de la Asso. Med. Argentina, July, 1921) reported that their pharmacologic study revealed that quinidin reduced the ex-

citability of the heart muscle, inhibited the excitability of the vagus nerve, and slowed the heart rate. Boek (Med. Klinik, Aug 28, 1921) reports that, following the administration of quinidin, auricular fibrillation was changed to a regular rhythm in 45 per-cent of his 35 cases; in two cases, this effect has persisted for a year. As a rule, however, suspension of the drug was followed by a return of the arrhythmia. Some of the cases were failures, and some exhibited distressing symptoms as a result of the administration of the drug. Schrumpf (Presse med., July 31, 1920) concluded from his clinical studies that quinine, even in large doses, did not improve definitely-established auricular fibrillation or flutter; that, when the auricular condition is only temporary, quinin has a curative effect sometimes; that the production of a regular pulse is due to a transformation of the fibrillation into a flutter and is not due to a complete cure of the fibrillation.

**Use of Luminal in Epilepsy.** Austin (Ohio State Med. Jour., Oct. 1, 1921) has treated a group of 49 epileptics, for a period of fifteen months, with luminal. The dosage ranged from 1 to 5 grains given at bed-time. He does not consider this drug as a specific, but he is certain that it will ameliorate many cases and that it has given better results than any drug so far used. No harmful effects have been noted in those taking the drug. As a matter of fact, those taking the drug are, in many cases, quite improved, mentally and physically.

**Treatment of Syphilis by Intravenous Injections of Mercury.** Lane (Lancet, Oct., 15, 1921) has been giving one injection of arsphenamine, followed by five daily injections of mercuric cyanide intravenously. The amount of the mercury given depends upon the tolerance of the particular patient. Lane believes that this plan of treatment has real value.

**Diagnosis and Treatment of Essential Vascular Hypertension.** Balyeat (Jour. Oklahoma State Med. Asso., June, 1921) calls attention to the great value of kidney function tests and ophthalmoscopic examina-

tions as means of making early and accurate diagnoses of essential vascular hypertension and in differentiating this condition from nephritis. These patients usually die of cerebral apoplexy or of heart failure. The treatment, he says, consists mainly in teaching the patient how to live.

**Basal Metabolism and the General Practitioner.** Hutton, in a timely article, (*Ill. Med. Jour.*, June 1921) calls attention to the fact that the best measure of the degree of thyroid activity is the determination of the basal metabolic rate. This examination should be combined with history taking and a thorough physical examination. Hyperthyroidism, febrile conditions, leukemia, and acromegaly cause an increased metabolic rate. Hypothyroidism causes a decreased rate. Carbohydrate tolerance is usually decreased in hyperthyroidism and usually increased in hypothyroidism.

**The Treatment of Acute Pneumonia with Artificial Pneumothorax.** Friedemann (*Dentsch. med. Woch.*, April 21, 1921) declares that rest to the lung is a very essential factor in all diseases of the lungs, particularly in typical one-sided croupous pneumonias. He has used artificial pneumothorax to accomplish this result in nine cases. Provided no sensation of pain or oppression is complained of by the patient, during the injection, 400 to 600 mils of nitrogen gas are injected in the fifth intercostal space in either the anterior or midaxillary line. Immediately, the pain and anxiety disappear, the breathing becomes quiet, and the general condition improves. If the pneumonia does not improve, the same amount of gas is injected two days later. The temperature falls by lysis, the toxæmia is lessened, and the course of the disease is milder. Early pneumothorax may abort the pneumonia. In the same magazine for June 2, 1921, Burckhardt remarks that this therapeutic procedure seems to be indicated in all acute pneumonias, as it relieves the pain and favorably influences the disease process by putting the inflamed lung at rest.

## ABSTRACT.

By Division Venereal Diseases, U. S. P. H.

### RESULTS OF THE WASSERMANN TEST ON 1518 MEN AT SAN QUENTIN PRISON.

By G. W. Nagel *California State Journal of Medicine*, Vol. XIX, No. 5, May, 1921.

The Wassermann test was performed on 1518 men of which 166 or 10.93 per cent showed some luetic involvement. The following are some data obtained:

Married	39.75 per cent
Single	60.25 per cent
Admitted a venereal disease	66.27 per cent
Denied a venereal disease	33.73 per cent
Gonorrhea only	32.53 per cent
Syphilis only	5.42 per cent
Both gonorrhea and syphilis	27.71 per cent
Never received anti-syphilitic treatment	96.99 per cent

Of the 166 cases, 139 men received treatment at San Quentin. The course of treatment consisted of an injection of arsenobenzol every four to eight weeks. In the interim the patient receives mercury rubs nightly for six days followed by a week of rest. This procedure is continued as long as signs of lues are present or until symptoms of mercurialism appear.

Up to date 77.53 per cent have shown marked signs of improvement. A few cases remain "Wassermann fast, in spite of prolonged treatment. There is no adequate explanation for such occurrences. In this connection it may be noted that the reliability of the Wassermann test as an indication of the patient's condition has been seriously questioned by some, it being claimed that certain cases though actually cured, still give positive reactions. Another point of interest is that 22.3 per cent of those who showed improvement first gave a negative reaction followed by a positive one again before the final negative or at least a reduced Wassermann resulted.

## Conclusions

1. The Wassermann test should be made a routine procedure in all complete medical examinations.



2. A negative history and physical examination does not preclude the possibility of lues being present.

3. The treatment as outlined above is an effective practically safe method of bringing about a negative Wassermann reaction.

4. Five or six injections, accompanied by mercury rubs extending over a period of from one to two years are usually sufficient to bring about the desired result.

5. A small percentage of cases show no improvement in spite of prolonged treatment.

### ABSTRACT.

By Dr. N. M. Owensby

### THE ETIOLOGY OF MULTIPLE SCHLEROSIS.

By Tommaso Senise.

In *Ann. di nevrol.*, No. 1-2, Naples, 1921.

The author of this article thinks that the etiology of Multiple Sclerosis is approaching a definite solution. He is of the opinion that the disease is due to the 'Spirocheta argentinensis' which was discovered by Kuhn and Steiner in 1917, and later demonstrated in the cerebrospinal fluid by Marinesco and others.

### THE TREATMENT OF POLYNEURITIS.

By H. Rubens.

In *Deutsch. med. Wochenschr.* June 2, 1921.

A case of polyneuritis following an attack of influenza is reported which was cleared up by the intravenous injections of salicylates. All other forms of treatment had previously failed to ameliorate the condition. "Sayacon" ampules, containing 0.43 gm. sodium salicylate, 0.05 gm. caffeine, and 3.0 gm. water, is suggested as a convenient way for the administration of the salicylates.

### THE TREATMENT OF ACUTE ANTERIOR POLIOMYELITIS.

By W. Viekers.

In *Med. Jour. of Australia*, May 14, 1921.

Complete rest in bed with a complete relaxation of the affected muscles is advocated. Splints holding the limb in place and preventing stretching and rotation until

the muscles can do their work against the effect of gravity. Minimal movement of the muscles after pain and tenderness have subsided. No fatigue of muscle must be allowed.

**Das Vegetative Nervensystem** (The Involuntary Nervous System). By Prof. Dr. L. R. Muller. Wurzburg, Berlin, 1920. Verlag von Julius Springer. p. 299.

This is by far the best treatise on the anatomy and physiology of the vegetative nervous system that has been published in recent years. The conservatism of the author in his statements and his realization of our deficient knowledge of the subject makes the work more attractive.

The text is perhaps too scientific for the general practitioner, but it should be read by all physicians who limit their practice to nervous diseases.

### BOOK REVIEW.

**The Major Symptoms of Hysteria.** By Pierre Janet, Paris. 1921. The Macmillan Company, New York. p. 345.

Professor Janet was for twenty years the Director of the Psychological Laboratory of the Salpêtrière and has had opportunities of observing all the various phases of Hysteria. He is regarded by the French School of Neuropsychiatrist as an authority and this work justifies his title. He deals with the subject in a clear and comprehensive way and has brought his work thoroughly up to date. This work should prove to be of special interest to the large number of physicians who devote their services to general practice because of the fact that it furnishes so much valuable information on a subject that gives them much concern. Owensby.

### THE DEAD-BEAT.

(Continued from Page 843)

But the most virulent and fatal type of the "dead-beat," is the man who tries to make a special, close and confidential friend of you. This fellow will dead-beat you in several different languages, and a variety of colors. Generally he is agent for his wife, or his property is mortgaged or belongs to his children. Of course all the other doctors are bidding for his patronage, but you being his special friend and possibly related to his son-in-law's great-grand-



father, for these family reasons he prefers to honor you with his patronage. He will wait for one of his tenants to get sick, or persuade a negro that he needs a doctor, and sends for you. Then in a friendly way ask you to call by the house and prescribe for some member of his family and tell you to charge it to the negro.

Another variety of the tribe is of the floating variety—worse than a floating kidney. He will make a run on you for services till you ask for a settlement, put you off indefinitely, vilify you as a worthless doctor, as a soothing plaster for his conscience, and then go to some other credulous doctor and repeat the same feats of fraud. This disease occasionally assumes a very mild type and attacks the thoughtless and improvident man. He would pay his bills if you could catch him with the money. But he makes no provision to meet any particular obligation, and his money is soon squandered. He pleads his family expenses, or his merchant took all his crop for supplies, or he has failed to collect the very money which he intended to pay you, consequently he is not to blame in default of payment, but the other rascal who failed to pay him.

To be a successful collector requires a man endowed with very acute powers of discrimination. I have found very few men who were altogether bad and dishonest; also very few who had developed any signs of the cropping out of angelic wings on their shoulders. In judging humanity, it is somewhat like the little boy's definition of a zebra; it is difficult to decide whether he is a white horse with black stripes, or a black horse with white stripes. Let us be charitable and consider the horse white at heart, and the black stripes only the incidents of unfortunate environment.

Now, Gentlemen, I have given you a faint outline of the professional "Dead-beat" as he has been exhibited to me in the last 55 years, and whatever stringent remarks I may have made on the professional "Dead-Beat" no reflection is intended towards the poor and unfortunate. I believe as a class of men, no profession is more liberal and lenient to the honest, poor man than his doctor. And I am loath to believe we have any man in our noble profession who would refuse to cheerfully ren-

der any necessary assistance to any one who is truly deserving of sympathy. The poor we will always have with us. And we will always be called on to render them service in time of trouble and misfortune without regard to remuneration. It is only the man who by devious ways manages to procure the doctor's services for nothing, squanders his income or puts his energy and honesty in cold storage, that is the class we are called on to guard against; not in a spirit of enmity, but for self protection. The doctor who happens to drop into a community which has been served by one of these "goody-goody-sissy-doctors" will find that mode of collecting bills similar to passing around the hat in church.

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### BOOKS RECEIVED.

Books received are acknowledged in this column, and such acknowledgment we regard as sufficient return for the courtesy of the sender. Selections will be made for review in the interest of our readers, with the assurance to the publishers that most books will be reviewed.

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### *THE SURGICAL CLINICS OF NORTH AMERICA.*

(Boston Number, June, 1921)

The Surgical Clinics of North America (Issued Serially, one number every other month) Volume 1 Number 3. By Boston Surgeons. 345 pages, with 159 illustrations. Per clinic year (February 1921 to December 1921). Paper \$12.00 net; cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

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### *A TEXT-BOOK OF THE PRACTICE OF MEDICINE.*

Fourteenth Edition, Thoroughly Revised

A Text-Book of the Practice of Medicine, by James M. Anders, M. D., Ph. D., LL. D., Professor of Medicine Graduate School of Medicine, University of Pennsylvania, Fourteenth Edition, Thoroughly Revised with the Assistance of John H. Musser, Jr., M. D., Associate in Medicine, University of Pennsylvania. Octavo of 1284 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1920. Cloth \$10.00 net.

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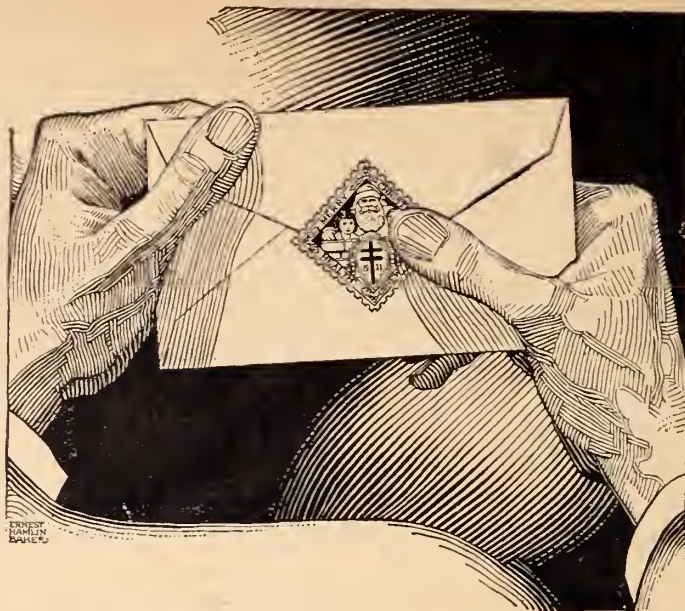
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